San Bernardino County Non-Motorized Transportation Plan - Review Draft -

prepared by
San Bernardino Associated Governments

in collaboration with
Local Jurisdictions in San Bernardino County

February 22, 2011

Table of Contents

1.0 Introduction

1.1 Purpose and Need for the Non-Motorized Transportation Plan

A safe, interconnected cycling and walking system can be a major asset to both individual communities and to an urban area, particularly one as well suited to these activities as San Bernardino County. The climate and topography are highly conducive for these and other outdoor pursuits. Both natural and man-made corridors provide ideal opportunities for development of a comprehensive system of cycling facilities, pathways, and trails. Even though San Bernardino County is known for its recreational opportunities, such a system is not well developed in many areas of the County.

However, progress is being made. In 2001, the combined total of centerline miles of bicycle infrastructure for all jurisdictions was 53 miles. As of 2011, the combined total of centerline miles of bicycle infrastructure for all jurisdictions is 468 miles. This represents an eight-fold growth in the County's bicycle infrastructure.

It is not difficult to convince the public that the provision of bicycle and walking facilities makes sense as a community investment. One of the themes emerging from the public meetings to develop a County vision is that residents place high value on cycling and walking features within their communities. Cycling and walking trails have been listed in the County's "Countywide Vision Project" meetings as a part of our infrastructure needing improvement and are also commonly highlighted as a selling point in advertising for new communities.

These facilities, and the activities enabled by them, are good for our health, good for our economy, good for our environment, and good for our quality of life. The facilities can also be implemented without great expense. There is every reason to believe that San Bernardino County can and should be one of the centers of cycling and pedestrian activity in Southern California.

The challenge ahead involves developing a cohesive, integrated plan and identifying sources of funds to implement that plan. This is the goal of the San Bernardino County Non-Motorized Transportation Plan (NMTP). The NMTP of 2001 and the 2006 update have taken us part way there. This 2011 Plan hopes to take the development of such systems to another level. It identifies a comprehensive network, with a focus on the bicycle system. It is also a response, in part, to the initiatives to reduce vehicle travel and greenhouse gas emissions embedded in California Senate Bill 375 (SB 375).

Implementation of the Plan will be a win-win on multiple fronts, and a strong partnership among local governments, transportation agencies, and the citizens of San Bernardino County can make it happen. The 2011 San Bernardino County NMTP will serve as a vehicle for communicating the non-motorized vision for the County, which is represented by the collective visions of each jurisdiction. Although the jurisdictions will be responsible for implementation of the Plan, it is important to have a Plan that cuts across subareas and jurisdictions so that coordination can occur on a physical facility level as well as in scheduling and funding.

The remainder of Chapter 1 describes the context of San Bernardino County, the process of NMTP development, and the relationship to other plans.

1.2 The San Bernardino County Setting

San Bernardino County, located in the northeastern portion of Southern California, boasts a wide variety of urban and rural settings. Framed by Los Angeles County on the west, Riverside County to the south, and extending to Nevada and Arizona to the east, the County serves as a major gateway into and out of the Southland. Interstate 10, State Route 60, and State Route 210 provide substantial east-west mobility in the Valley Region. Interstates 15 and 215 and SR-71 provide north-south freeway connectivity. I-15 connects Riverside and San Diego Counties to the south, and continues over the Cajon pass to the cities of the high desert and northward to Las Vegas. See map of the County and its subareas in Figure 1-1.

State Routes 18 and 330 and Scenic State Highway 38 provide connections to the mountains surrounding the Valley, providing linkages for tourists and residents from the Valley to Lake Arrowhead, Big Bear Lake and other mountain communities. State Routes 18, 62, 138, and 247 provide additional connectivity in the Victor Valley, Morongo Basin and surrounding communities.

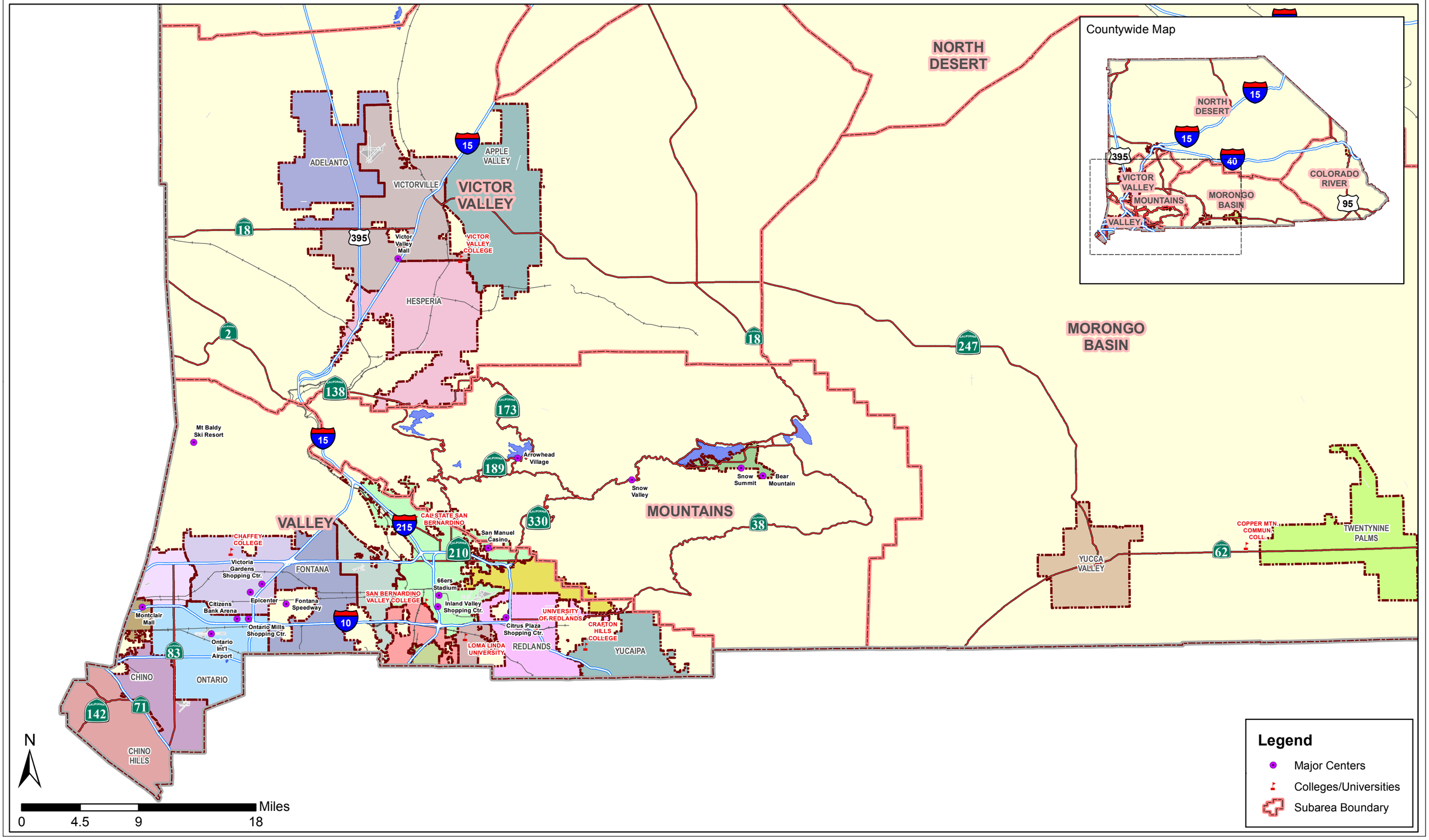
The County is connected to other regional centers by scheduled transit and commuter rail service provided by Metrolink. The San Bernardino Metrolink line is the most heavily traveled commuter rail line in Southern California, providing 36 trains per day to and from San Bernardino, Los Angeles and intervening cities. Metrolink service also is provided from San Bernardino to Riverside and Orange Counties, with 8 trains per day. Omnitrans provides local and express bus service within the County and into adjacent communities. Five other transit operators provide transportation for work and non-work trips. The SANBAG Long Range Transit Plan provides a vision for rail and transit service in the Valley Region of San Bernardino County and is a framework around which some of the bicycle and pedestrian facilities can be planned.

LA/Ontario International Airport (ONT) is located in the west valley and is the third busiest passenger airport in Southern California after Los Angeles International Airport (LAX) and John Wayne Airport in Orange County. It is also the second busiest hub for freight movement and is adjacent to one of the principal focal points of logistics and distribution in California.

San Bernardino County is known for its world-class transportation and distribution centers, owing much to its historic role as a crossroads of rail transportation and now also serving the same function for truck transportation. The area is also known for its historic agricultural heritage in citrus and vineyard operations, although today, the residential and commercial growth has severely curtailed agriculture in the Valley.

The environment for cycling and walking in San Bernardino County is ideal. The climate is temperate, with a range in average high temperatures for the Valley of 67 to 96 degrees, in the Victor Valley from 60 to 98 degrees, and in the Morongo Basin from 64 to 108 degrees. The average high temperatures in Big Bear Lake range from 47 to 81 degrees. Rainfall is moderate and concentrated in the November through March timeframe, while humidity is generally low. The topography outside of the mountain areas is typically flat to moderately sloping.

San Bernardino County
Subarea Map



Despite the suitability of the climate and topography, relatively little commuter-related cycling occurs. Statistics from the American Community Survey (2006-2009) indicate the percentage of trips to work by bicycling and walking. The bike-to-work percentage varies by jurisdiction, but is only about 0.4% countywide. The walk-to-work percentage is higher, but still only about 1.5%, and this statistic was heavily influenced by very high walk-to-work percentages at the Twentynine Palms Marine Base.

Table 1-1 shows that the percent of trips to work by bicycle are low throughout Southern California, and presumably throughout the rest of the United States. The counties are not greatly different from one another in terms of the percentage of bike/walk trips to work.

Table 1-1. Percent of Trips to Work by Bicycle and Walking for Southern California Counties (Source: American Community Survey 2006-2009)

COUNTY	Total Trips to Work	No. of Bike Trips	No. of Walk Trips	% Bike Trips	% Walk Trips
Imperial	43,205	195	685	0.45%	1.59%
Los Angeles	3,858,750	20,975	54,630	0.54%	1.42%
Orange	1,313,985	9,500	13,220	0.72%	1.01%
Riverside	590,515	2,825	5,810	0.48%	0.98%
San Bernardino	658,710	2,475	10,070	0.38%	1.53%
Ventura	345,660	2,165	3,930	0.63%	1.14%
TOTAL	6,810,825	38,135	88,345	0.56%	1.30%

Streets and Highways Code Section 891.2 requires an estimate of the number of existing bicycle commuters in San Bernardino County and an estimate of the number of bicycle commuters that may be present upon implementation of the NMTP. Given that the number of workers in San Bernardino County is approximately 870,000, one can estimate that there are currently 3300 commuting cyclists daily in the County. A reasonable goal for increased bicycle mode share is to achieve the region-wide average (0.56%) over the life of the plan. This increased mode share taken together with an increase in workers would result in approximately 5500 commuting cyclists within the next 20 years.

Anecdotal evidence indicates that substantial recreational cycling occurs in San Bernardino County in areas where facilities are available. If San Bernardino County is generally representative of the nation, the following national statistics help to characterize the cycling and walking habits of the population (Source: National Survey of Bicyclist and Pedestrian Attitudes and Behavior, National Highway Traffic Safety Administration, August 2008.). The survey was of persons age 16 and older.

National Bicycling Statistics

- 27% of the population age 16 and older rode a bicycle at least once in the last 30 days; translated to San Bernardino County, this would mean approximately 300,000 persons 16 and older road their bike in the last month.
- 19% indicate that they ride at least once per week in the summer months; 57% indicate that they never ride a bike

- 29% of bicycle trips are for recreational purposes, 24% are for exercise/health, 14% are for personal errands, and only 5% are for commuting to work or school
- Access to bicycles - Slightly less than half (46%) of those 16 and older have regular access to a bicycle, with access increasing with increases in household income.
- About 43 percent ride a bicycle at least once in the summer months.
- Bicycling declines with age, with those under 20 most likely to bicycle and doing so more frequently, while the majority over 45 did not bicycle during the summer months.
- About half of all trips (48%) were made on paved roads. An additional 13 percent were on shoulders of paved roads, and 5 percent on bike lanes on roads. One in 7 was made on sidewalks (14%) and 13% were made on bike trails/paths.
- Half of bicyclists nationally say bike paths are available in the area they ride, while 32 percent say bike lanes are available.
- Over half of those who do not use available bicycle paths or lanes say they don't use them because they are not convenient, available, or go where they need to go.
- More than one in 10 bicyclists (13%) felt threatened for their personal safety on the most recent day they rode their bicycle, 88 percent of these feeling threatened by motorists.
- About 4 percent of bicyclists, or 2.04 million nationally, were injured while riding in the past two years. About 25% of these were hit by a motorist.
- Nearly half (48%) of those 16 and older are satisfied with how their local community is designed for making bicycle riding safer.
- Almost half (48%) of those 16 and older would like to see improvements to bicycle facilities, including more bike lanes (38%) and bike paths (30%).

National Walking Statistics

- About 86 percent of people 16 or older walked, jogged or ran outdoors for 5 minutes or more during the summer months, with 78 percent doing so within the past 30 days.
- Walking in the past 30 days decreases to 66 percent for those over 64.
- Personal errands (38%), exercise (28%) and recreation (21%) are the most common reasons for walking trips.
- Nearly half (45%) of the walking trips were mostly made on sidewalks, and 25 percent were mostly on paved roads. Just 6 percent were made mostly on bike or walk paths or trails.
- About 6 percent of pedestrians felt their personal safety threatened on their most recent trip, with 62 percent saying they felt threatened by motorists.
- Almost three-quarters of people 16 and older (73%) are satisfied with how their local community is designed for walking, though one-third would like to see changes including more sidewalks (42%) and more street lights (17%).

The physical infrastructure for cycling and walking varies widely from one city to another and within cities as well. Some of the newer communities such as Rancho Cucamonga have worked closely with developers to create walkable residential areas with an abundance of trails, bicycle facilities and other amenities. Some older communities such as Redlands have had the historical benefit of sidewalks, grid streets, and streets wide enough for bicycles and autos to co-exist. Each city or unincorporated area has its strengths and weaknesses with respect to the suitability of infrastructure for walking and cycling.

One of the purposes of the NMTP is to re-think the role of some of the streets in our communities – who uses them, how they function, and how they are designed. It is while the infrastructure of the new century is being designed and constructed that the needs of all transportation users must be taken into account. Quality is an easier goal to achieve when

designed from the beginning – and prohibitively expensive to add after the fact. California's "Complete Streets" legislation (AB 1358) pushes local governments to think multi-modally when constructing roadway infrastructure, and not consider autos and trucks exclusively.

1.3 Overview of the NMTP Development Process

The development of the 2011 NMTP was a collaborative effort between SANBAG and local jurisdictions in San Bernardino County, with policy oversight by the SANBAG Board of Directors. The existing 2006 update of the NMTP and the associated local jurisdiction plans provided the starting point, but the 2011 Plan represents a wholesale upgrade of the entire document, focusing principally on the bicycle system, but on the walking environment as well.

SANBAG staff conducted an initial inventory of all existing Class I, II and III bicycle facilities in the County and rode most of the facilities personally. This was supplemented by local jurisdiction inventory data. Existing facilities were then mapped, and proposed facilities from the prior plan were superimposed. This served as the starting point for network development, representing an interactive process between SANBAG and local jurisdiction staff.

Basic criteria were applied to gauge the need and feasibility for additional bicycle facilities, including:

- Connections to major destination points and trip generators
- Connectivity within and across jurisdictional boundaries
- Potential for usage of exclusive rights-of-way (i.e. for Class I facilities)
- Physical characteristics of roadways and suitability for accommodation of bicycle facilities (i.e. for Class II and III facilities)
- Closing gaps between existing facilities
- Constructability and cost issues

Accident data were tabulated from the Statewide Integrated Traffic Records System (SWITRS), both by jurisdiction and for the County as a whole. A comprehensive countywide map of existing and proposed facilities was then prepared, and a draft subarea map was prepared for each jurisdiction. Each map was accompanied by tables of existing and proposed facilities, and a narrative was prepared describing both existing conditions and the bikeway plan for each. Construction costs were estimated for each improvement type and segment based on current unit cost factors (in 2010 dollars). The relevant sections were provided to each jurisdiction for review.

Typically two to three review cycles were undertaken before the city-level maps, tables, and text were finalized. These represented the "core" of the bicycle portion of the plan and were incorporated into Chapter 4. The Transportation Technical Advisory Committee (TTAC) served as a focal point for discussion of technical issues related to the NMTP. Periodic reviews of NMTP status were provided to the TTAC beginning in 2009.

The body of the report was completed and provided for local jurisdiction review in mid-February 2011. The report was reviewed by the TTAC and by individual jurisdictions, and comments were reflected in the text, as appropriate.

The SANBAG Plans and Programs Committee served as the committee with policy oversight throughout the process. The committee approved the proposed NMTP policies in October 2009 and received reports on the Plan in February and March, 2011. Following approval of the NMTP by the Committee on March 16 (action yet to come), the SANBAG Board approved the Plan on April 6 (action yet to come). Individual jurisdictions were responsible for approval of the Plan with their own city councils and the Board of Supervisors.

Public involvement opportunities have been available through the open meetings of the Plans and Programs Committee. Agendas have been posted and are available to all through the SANBAG website. However, direct outreach to the public and advocacy groups was limited during the course of the development of this Plan, due to the compressed timeline in which the Plan had to be prepared once the dates were set by the State for local jurisdiction applications for Bicycle Transportation Account funds. Nevertheless, one of the implementation actions listed in Chapter 7 is to take this significantly upgraded NMTP to both bicycle and pedestrian advocates and the general public. Comments and suggestions from these groups will be incorporated into the Plan, with another update of the NMTP anticipated by the end of 2012.

1.4 Relationship to Other Planning Efforts

The San Bernardino County Non-Motorized Transportation Plan is intended to coordinate and guide the provision of all bicycle related plans, programs and projects within the County. As a countywide plan, it focuses on providing bikeway connections between the incorporated cities, adjacent counties and major regional destinations within the County. The Plan also identifies local jurisdiction priorities, where applicable, and serves as a guide regarding bikeway policies and design standards.

Southern California Association of Governments' Regional Transportation Plan (RTP)

The SCAG 2008 RTP contains a non-motorized section and is supported by a separate report for non-motorized transportation. The policies/desired outcomes expressed in this report include the following:

- Decrease bicyclist and pedestrian fatalities and injuries
- Increase accommodation and planning for bicyclists and pedestrians
- Increase bicycle and pedestrian use in the SCAG region as an alternative to vehicle trips
- Encourage development of local non-motorized plans
- Produce a comprehensive regional non-motorized plan
- Improve funding for non-motorized transportation

The San Bernardino County NMTP is consistent with these statements. In fact, the NMTP represents the implementation of several of these desired outcomes.

The RTP also contains mapping of non-motorized facilities that incorporates mapping prepared by subregions such as SANBAG. As such, the RTP is a coordinating document in particular for routes, pathways, and trails that cross county boundaries.

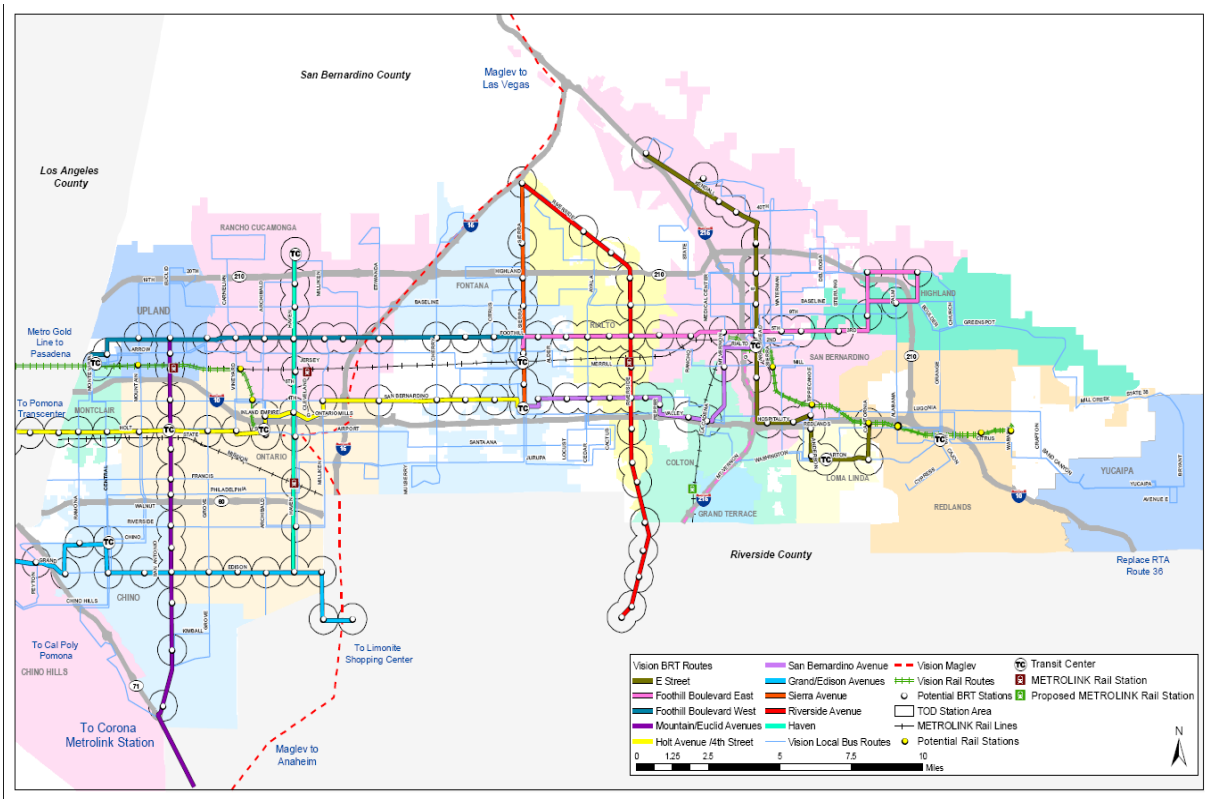
A major focus of the 2012 RTP is the development of a Sustainable Communities Strategy (SCS). This includes the focusing of land use activity within existing and future transit station areas and the planning for transportation strategies that enhance non-auto mobility, reduce

energy consumption, and reduce greenhouse gases. Non-motorized transportation modes will play a prominent role in the SCS.

SANBAG Long Range Transit Plan (LRTP)

The Long Range Transit Plan addresses the County's travel challenges and provides a system of transit facilities and services that can increase transit's role in the future. Given the large and diverse nature of the county, the plan is split geographically into three areas: San Bernardino Valley; Victor Valley; and rural areas. In the San Bernardino Valley, the LRTP includes major projects such the Redlands Rail system between San Bernardino and downtown Redlands, extension of the Gold Line to Montclair, with additional planning to LA/Ontario International Airport, and extensive Bus Rapid Transit network. The first segment of the BRT system between Cal State San Bernardino and Loma Linda is scheduled to be in operational service by 2015. There are many transit stations around which non-motorized facilities should be planned. Figure 1-2 shows the existing and future LRTP network in the Valley and approximate station locations around which land use and pedestrian/bicycle connectivity can be planned.

Figure 1-2. Existing and Future Long Range Transit Plan Network



Improvement to Transit Access for Cyclists and Pedestrians

SANBAG has received a grant from Caltrans under the Statewide or Urban Transit Planning Studies program for an effort entitled "Improvement to Transit Access for Cyclists and Pedestrians." The project seeks to identify a range of physical infrastructure improvements, such as more or better bicycle parking, better way-finding signage and better connections to nearby pedestrian paths, trails and bike lanes to encourage more people to walk or bike to Metrolink and planned E Street sbX stations. Such infrastructure improvements would provide

Metrolink and sbX users with additional modal alternatives to and from the transit system, thereby decreasing automobile traffic within station catchment areas and reducing the need for automobile parking at station locations. Moreover, providing improved infrastructure within transit catchment areas will promote increased safety for pedestrians and cyclists. This planning effort should be completed near the end of Fiscal Year 2011-2012.

Measure I 2010-2040 Strategic Plan

The SANBAG Board of Directors approved the Strategic Plan on April 1, 2009. The Strategic Plan is the reference manual and policy document for the administration of Measure I 2010-2040 programs by SANBAG and its member agencies. Measure I funds come from the 1/2 cent sales tax approved by voters in 1989 and extended by the voters to 2040 in the 2004 elections.

The report is presented in two parts and a series of appendices. Part 1 provides an overview of Measure I 2010-2040, describes the scope of each Measure I program, presents financial information, and provides an overview of the policy structure for each program. Part 2 presents the specific policies by which each Measure I program will be administered. Roadway-based non-motorized facilities are included as eligible expenditures through the Valley Major Street/Arterial program and through the Major/Local Highways programs for Mountain/Desert Subareas. In addition, planning and project development activities may be funded through the Traffic Management System programs in each subarea.

U.S. Forest Service Plans and Mapping

The U.S. Forest Service maintains Forest Management Plans that identify and plan for pathways and trails within the National Forest system, including the San Bernardino National Forest. In addition, maps are available showing trails and forest roads for hiking and mountain biking. See the following link to the San Bernardino National Forest: http://www.fs.usda.gov/wps/portal/fsinternet/!ut/p/c4/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gjAwhwtDDw9_AI8zPwhQoY6BdkOyoCAPkATlA!/?ss=110512&navtype=BROWSEBYSUBJECT&navid=091000000000000&pnavid=null&recid=null&actid=null&groupid=null&ttype=main&pname=San Bernardino National Forest- Home.

Caltrans Bicycle Transportation Account

Although not a plan, the Bicycle Transportation Account (BTA) is an important program that annually provides State funds for city and county projects that improve safety and convenience for bicycle commuters. To be eligible for BTA funds, a city or county must prepare and adopt a Bicycle Transportation Plan (BTP) that complies with Streets and Highways Code Section 891.2. The BTP must be approved by the local agency's Regional Transportation Planning Agency.

Caltrans anticipates an appropriation of $7.2 million annually for projects that improve safety and convenience for bicycle commuters. Streets and Highways Code (S&HC) Section 2106 stipulates the annual BTA funding level, subject to appropriation in the approved State budget. Per S&HC 891.4(b), funds are allocated to cities and counties on a matching basis that requires the applicant to furnish a minimum of 10 percent of the total project cost. No applicant shall receive more than 25 percent of the total amount transferred to the BTA in a single fiscal year.

Additional information on funding sources for cycling and walking facilities is provided in Chapter 7.

1.5 Structure of the NMTP

The Non-motorized Transportation Plan is organized into the following chapters:

Executive Summary
1. Introduction
2. Regional System Overview and Goals, Objectives, and Policies
3. Bicycle Planning
4. Pedestrian Planning
5. Local Jurisdiction Bicycle Plans
6. Design Guidelines
7. Plan Implementation

Chapter 5 is the key chapter showing the NMTP for bikeways at the jurisdiction level. It includes an inventory of existing and proposed facilities, mileage statistics, accident data, and a narrative that ties each plan together. SANBAG acknowledges several Non-Motorized Transportation Plans prepared for other California jurisdictions from which information, graphics, and examples were drawn for inclusion in the San Bernardino County NMTP, specifically, bicycle plans for Stanislaus County, San Francisco Bay Area, and City of Portland. Additional information was extracted from the *Caltrans Design Manual, Chapter 1000 – Bikeway Planning and Design*, American Association of State Highway and Transportation Officials (AASHTO) *Guidelines for the Development of Bicycle Facilities*, and the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (MUTCD).

To be eligible for Bicycle Transportation Account (BTA) funds, a city or county must prepare and adopt a Bicycle Transportation Plan that addresses items a. - k. in Streets and Highways Code Section 891.2. Caltrans has prepared a checklist of requirements under this code section, and the NMTP references the pages of the Plan that address those requirements. These are listed in Table 1-2.

Table 1-2. Requirements of Streets and Highways Code Section 891.2 and References to Pages in the Plan that Address these Requirements

Requirement	Pages
a) The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.	To be provided in final
b) A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.	To be provided in final
c) A map and description of existing and proposed bikeways.	To be provided in final
d) A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.	To be provided in final
e) A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	To be provided in final
f) A map and description of existing and proposed facilities for changing and storing clothes	To be provided in final
g) A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.	To be provided in final
h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.	To be provided in final
i) A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.	To be provided in final
j) A description of the projects proposed in the plan and a listing of their priorities for implementation.	To be provided in final
k) A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.	To be provided in final

2.0 System Overview and Policies

This chapter provides an overview of the subareas within San Bernardino County as well as a set of overarching policies to guide the Plan and its implementation. The focus of the Plan is on a primary (rather than local) network of bikeway corridors for intercity and regional travel.

2.1 Study Area Characteristics

The study area of the Non-Motorized Transportation Plan includes the entire County and connections among communities. Because of its geographic size and diversity, San Bernardino County is divided into seven subareas for purposes of NMTP mapping:

- East Valley
- West Valley
- Victor Valley
- Mountains
- Barstow Area
- Morongo Basin
- Needles Area

Each of these subareas has unique aspects and demographics relevant to establishing an effective NMTP. Maps presented in this section show the road network, school locations, parks, park-and-ride lots, existing transit stations, and significant destinations (e.g. major shopping centers, airports, hospitals, etc.). Similar maps are provided in Chapter 3 with an overlay of existing and future bicycle facilities.

2.1.1 San Bernardino Valley (East Valley and West Valley)

The San Bernardino Valley contains the most populous cities in the County and a rich selection of neighborhoods and destinations. Freeways and commuter rail connect it to other parts of Southern California and the adjacent counties of Los Angeles, Orange, and Riverside. There are 15 cities in the Valley: Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland, and Yucaipa. Figures 2-1 and 2-2 provide separate maps showing the East Valley and West Valley. (Note: all maps are provided at the end of this chapter in the order referenced).

Numerous centers of shopping and retail attractions are scattered throughout this part of the County. Shopping malls such as Ontario Mills, Citrus Plaza, and Montclair Plaza serve as regional attractors, while the mixed-use Victoria Gardens embodies a new urbanist flavor in Rancho Cucamonga. Several other retail centers in almost every city provide big-box shopping convenience, and most cities have a small downtown area with a focus on local retail.

California State University San Bernardino and the University of Redlands, located close to the foothills, draw students from the state and beyond, while Chaffey College, San Bernardino Valley College, and Crafton Hills College, serve more local populations. In the western Valley,

the cities of Montclair and Upland border Los Angeles County and thus are close to University of La Verne and the Claremont Colleges.

Numerous institutions of healthcare are situated in the Valley, such as Loma Linda University Hospital, Arrowhead Regional Medical Center in Colton, Kaiser in Fontana and Ontario, Redlands Community Hospital, St. Bernadine's in San Bernardino, and San Antonio in Upland. These serve as major employment centers as well.

The Valley has an established transportation infrastructure that is complementary to the goals of the NMTP. For commuters, Metrolink provides regular train service to Downtown Los Angeles each weekday with some weekend service as well. The San Bernardino Line has stops in Montclair, Upland, Rancho Cucamonga, Fontana, Rialto, and San Bernardino. The Riverside Line primarily serves Riverside County, but also stops in Ontario. The Inland Empire-Orange County Line takes workers into Orange County via San Bernardino and cities in Riverside County. Most Metrolink stations serve as transit centers, providing benefits to commuters such as park-and-ride lots and transfers to local bus routes. The station at Montclair has ample parking and affords access to several Foothill Transit and OmniTrans bus lines. A planned transit center in Downtown San Bernardino will link the future Redlands light rail line with Metrolink and a new north-south bus rapid transit (BRT) line.

OmniTrans is the local transit operator for the San Bernardino Valley, providing bus service throughout the jurisdictions and also into parts of Los Angeles and Riverside counties. The Long Range Transit Plan delineates an extensive future bus rapid transit system in the Valley. The E Street sbX line will run from California State University – San Bernardino south into downtown San Bernardino, and Loma Linda, with termination near the University of Redlands. Other routes throughout the Valley are being considered as well. Foothill Transit is the operator of bus service in the eastern portion of Los Angeles County (primarily the San Gabriel Valley) with some lines going into San Bernardino County.

While LA/Ontario International Airport is the primary airport for the Inland Empire, San Bernardino International Airport (SBD) is expected to provide passenger service at some point in the future. Currently SBD serves major freight airlines as well as firefighting duties for the United State Forest Service. Cable Airport, Chino Airport, and Redlands Municipal Airport are general aviation airports also located in the San Bernardino Valley.

2.1.2 Victor Valley and Barstow

Victor Valley and the Barstow area are located north of the San Bernardino Valley and connected to it by I-15 through the Cajon Pass,. Although less urban than the cities to the south, the jurisdictions of the Victor Valley have seen much development since the turn of the century. The Victor Valley subarea contains the cities of Adelanto, Hesperia, Victorville, and the Town of Apple Valley. Figures 2-3 and 2-4 provide mapping for the Victor Valley and Barstow areas, respectively.

Although not as developed as the San Bernardino Valley, the Victor Valley has a number of locations for shopping such as the Victorville Mall, Village Center, and the Victor Plaza Shopping Center. Barstow has a cluster of outlet shopping centers designed principally for the passing traveler on I-15, along with more local use stores in its downtown. The Marine Corps Logistics Base and Burlington Northern/Santa Fe railroad facilities are major employment locations. Victor Valley College and Barstow Community College are major educational

institutions located in Victorville and Barstow, respectively. Public transportation in the Victor Valley is provided by the Victor Valley Transit Authority, while Barstow Area Transit serves Barstow and its surrounding areas.

The Southern California Logistics Airport (SCLA) in Victorville is primarily used for the transport of overseas goods in and out of the Southern California region. This important center for logistics is also used for military troop transport and firefighting planes for the California Department of Forestry. There are also several general aviation airports in this subarea: Apple Valley Airport, Baker Airport, Barstow-Dagget Airport, and Hesperia Airport.

2.1.3 Morongo Basin

Nestled near Joshua Tree National Park is the Morongo Basin. Surrounded by the vast expanse of the Mojave Desert, the Morongo Basin subarea is ideal for bicycling, both for recreation and commuting. The Town of Yucca Valley and the City of Twentynine Palms are located within the subarea, along with the unincorporated areas of Joshua Tree and Morongo Valley. Figure 2-5 provides mapping for the Morongo Basin.

Communities in the Morongo Basin are lower density in terms of residential and commercial activities. Most of the commercial activity is focused along State Route 62. SR-247 provides connectivity to the north. The local marine base, Marine Corps Air Ground Combat Center in Twentynine Palms, provides yearlong training to new recruits and thus is a strong and stable part of the local economy.

Jurisdictions in the Morongo Basin are served by public transportation through the Morongo Basin Transit Authority. There are several general aviation airports in the Morongo Basin, including: Twentynine Palms Airport, Yucca Valley Airport, and Roy Williams Airport.

2.1.4 Mountains

The Mountains subarea is located north and east of the San Bernardino Valley. It offers much in terms of recreational activities with its easy access to skiing resorts and Big Bear Lake. The only incorporated jurisdiction is that of the City of Big Bear Lake, though there are many unincorporated areas nearby, such as Big Bear City and Lake Arrowhead. Figure 2-6 provides mapping for the Mountain subarea.

The Mountains subarea is an active recreational area, particularly for winter sports. Communities in the Bear Valley subarea are centered on providing services and retail accommodations to visitors. Additionally, its location in the San Bernardino National Forest provides dozens of hiking and off-road trails. The backbone highway network consists largely of State highways, requiring Caltrans to play an active role in any accommodations considered for non-motorized facilities.

The Mountain Area Regional Transit Authority provides bus service to residents and visitors in the areas around Big Bear Lake, including service down the mountain to the East Valley. Big Bear City Airport is a general aviation airport just outside the city limits of the City of Big Bear Lake.

2.1.5 Colorado River Basin

Located along the Colorado River, this subarea contains the City of Needles and abuts Arizona.to the east. Although it has limited population, the Colorado River Basin provides ample opportunities for recreation and outdoor activities. The area is also home to a satellite campus of Palo Verde Community College in Needles. Figure 2-7 provides mapping for the Colorado River Basin subarea.

Needles Area Transit provides public transportation to Needles and surrounding communities. The Chemehuevi Valley Airport is a general aviation airport located approximately eighteen miles south of Needles.

2.2 Goals

The infrastructure improvements and programs recommended in the San Bernardino County for the NMTP will be shaped by the Plan's goals and policies. Goals provide the context for the specific policies discussed in the NMTP. The goals provide the long-term vision and serve as the foundation of the Plan. Goals are broad statements of purpose, while policies identify specific initiatives and provide implementation direction on elements of the Plan.

The following represent the goals of the NMTP:

1. Increased bicycle and pedestrian access - Expand bicycle and pedestrian facilities and access within and between neighborhoods, to employment centers, shopping areas, schools, and recreational sites.

2. Increased travel by cycling and walking - Make the bicycle and walking an integral part of daily life in San Bernardino County, particularly (for bicycle) for trips of less than five miles, by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient.

3. Routine accommodation in transportation and land use planning - Routinely consider bicyclists and pedestrians in the planning and design of land development, roadway, transit, and other transportation facilities, as appropriate to the context of each facility and its surroundings.

4. Improved bicycle and pedestrian safety - Encourage local and statewide policies and practices that improve bicycle and pedestrian safety.

2.3 Policies

A set of policy recommendations was approved the SANBAG Plans and Programs Committee in October 2009 and reconfirmed in February 2011. The policies are as follows:

1. Local jurisdictions are the agencies responsible for the identification of non-motorized transportation projects within their jurisdiction for inclusion into the Plan. SANBAG shall only serve in an advisory capacity with respect to the identification of projects on the

regional network. SANBAG shall provide advice on the inclusion of projects that may serve to better establish connectivity between jurisdictions, intermodal facilities and regional activity centers. However, local jurisdictions have sole authority over all projects included in the Plan

2. Local jurisdictions are also responsible for implementation of the projects included in the NMTP. SANBAG may provide advisory support to jurisdictions in the project development process on request. Should SANBAG be requested to provide assistance delivering a project in the Plan, such instances should be limited to development of regional non-motorized transportation facilities that provide connectivity to more than one jurisdiction or complete gaps within the regional non-motorized transportation network or serve to provide better access to transit facilities.

3. SANBAG shall, when feasible, support local education and safety efforts currently being implemented through local law enforcement, highway patrol, Caltrans and schools to better educate children and adults on the safe use of bicycles and to promote the non-motorized transportation system.

4. SANBAG shall prepare and update the comprehensive map identifying the County's non-motorized transportation system using its in-house GIS capabilities. Maintenance of the maps is also an important element of SANBAG's proposed 511 Traveler Information System.

5. SANBAG shall work with its member agencies to develop a regional way-finding system to assist travelers to identify the non-motorized transportation system. Any such system developed shall be developed in collaboration with local jurisdictions, will afford an opportunity for member agency customization, and promote connectivity to transit facilities, park and ride lots, and other regional activity centers.

6. SANBAG shall work with and encourage member agencies to incorporate non-motorized transportation facilities into general and specific plans as well as provide assistance in identifying design standards that provide for pedestrian- and bicycle-friendly access to transit facilities.

7. SANBAG shall use the NMTP as one component of the overall strategy to reduce greenhouse gas emissions pursuant to SB 375.

8. SANBAG shall work with and encourage transit operators to provide end-of-trip pedestrian and bicycle-serving facilities, such as bike lockers, racks, and capacity on transit vehicles to carry bicycles and better facilitate the integration and use of non-motorized transportation within the regional transportation system.

9. SANBAG shall use this plan as the basis to allocate state, federal, and local funds for delivery of non-motorized transportation improvements. Fund types may include, but are not limited to, federal Transportation Enhancement (TE), Congestion Mitigation and Air Quality (CMAQ), state Bicycle Transportation Account (BTA), and Transportation Development Act (TDA) Article 3 funds.

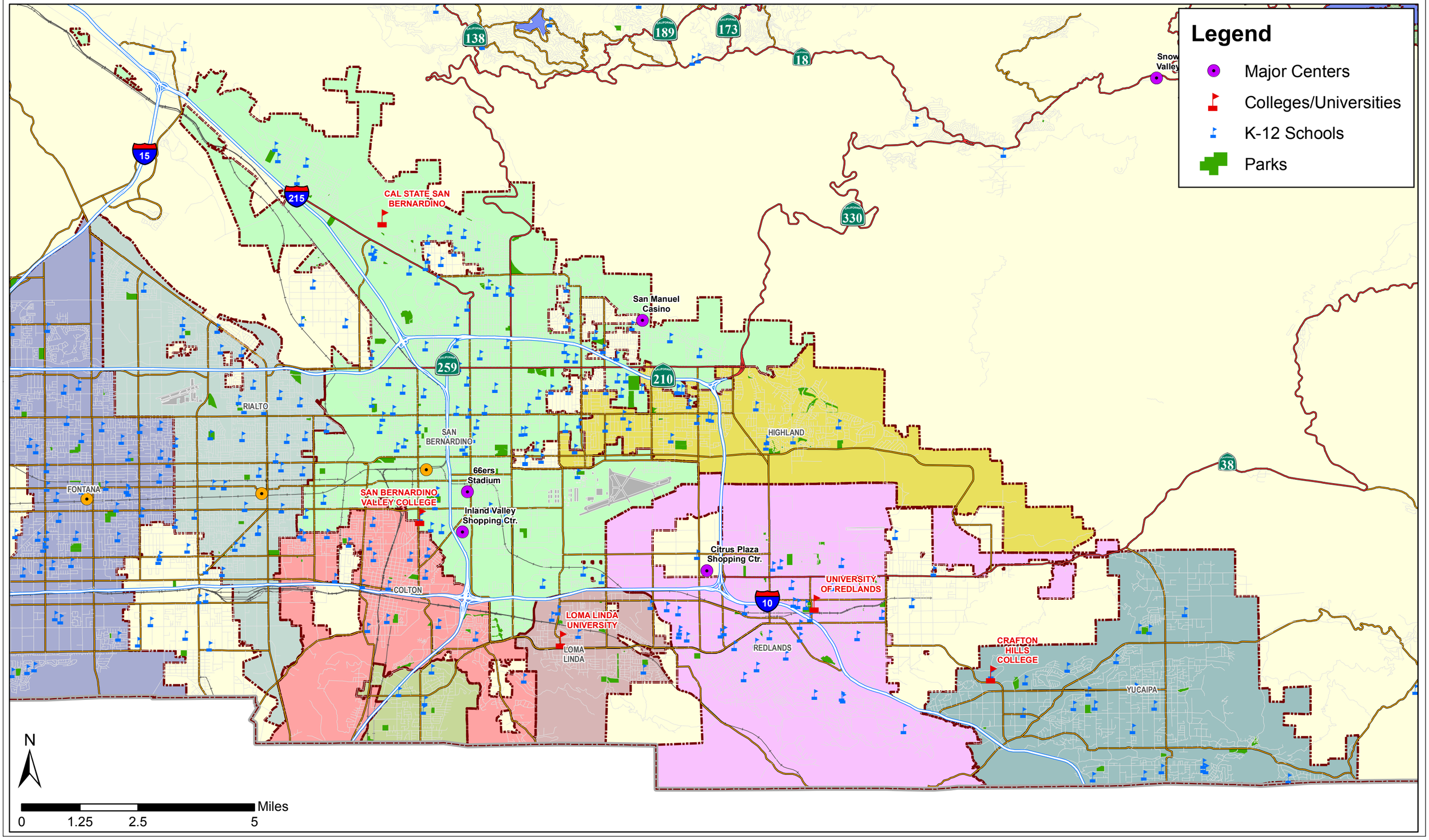
10. SANBAG shall work with member agencies to coordinate delivery of the NMTP and projects contained in the Nexus Study.

11. SANBAG shall work with member agencies to identify state/federal bicycle and pedestrian infrastructure or planning grant opportunities. When funding opportunities arise, SANBAG shall work to support local jurisdiction grant applications or collaborate with local jurisdictions to directly submit grant applications for projects in the Plan.

12. SANBAG and member agencies shall conduct regular bicycle and pedestrian counts to monitor the effects of implementation of the NMTP. SANBAG shall work to identify funding for the monitoring of Class I, separated shared-use facilities, so that no financial impact is borne by the local jurisdictions for collection of count information. Counts conducted on Class II and Class III, on-street bicycle facilities, shall correspond with counting for intersections that are both on the non-motorized network and require CMP Monitoring as outlined in the Congestion Management Program. When counts for non-CMP intersections are desired, SANBAG shall be responsible for identifying funding for such counts.

These policies constitute a modest expansion of SANBAG's role in implementing the NMTP. Most of the policy recommendations are incorporated into SANBAG's current activities, although they may not be explicitly stated. All of the proposed policies are consistent with the agency's role as a County Transportation Commission and a Council of Governments. Moreover, SANBAG programs significant state, federal and local funding sources to implement the components of the NMTP, and needs to play an active role in providing for regional non-motorized transportation from that perspective as well.

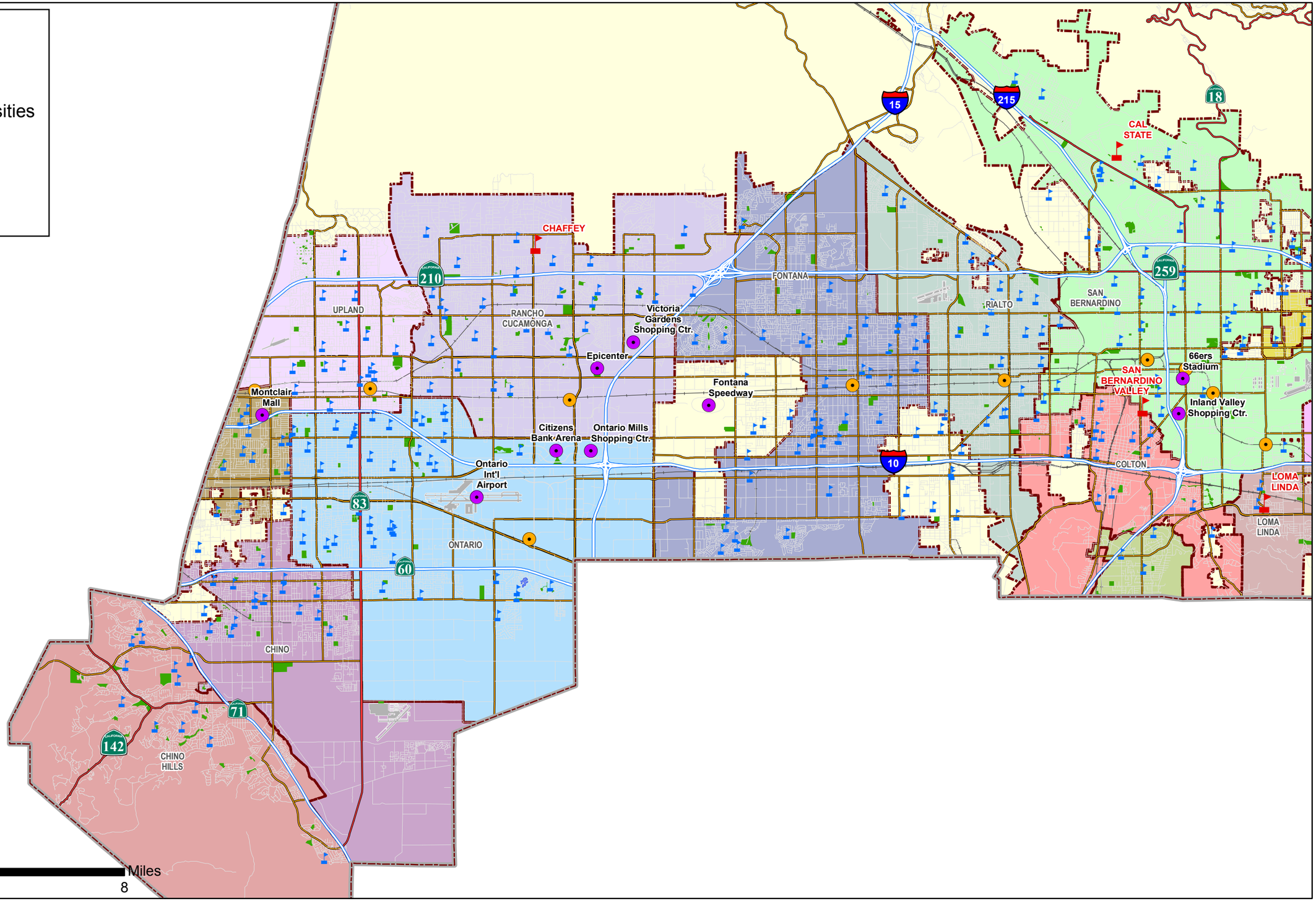
Overview Map
San Bernardino East Valley



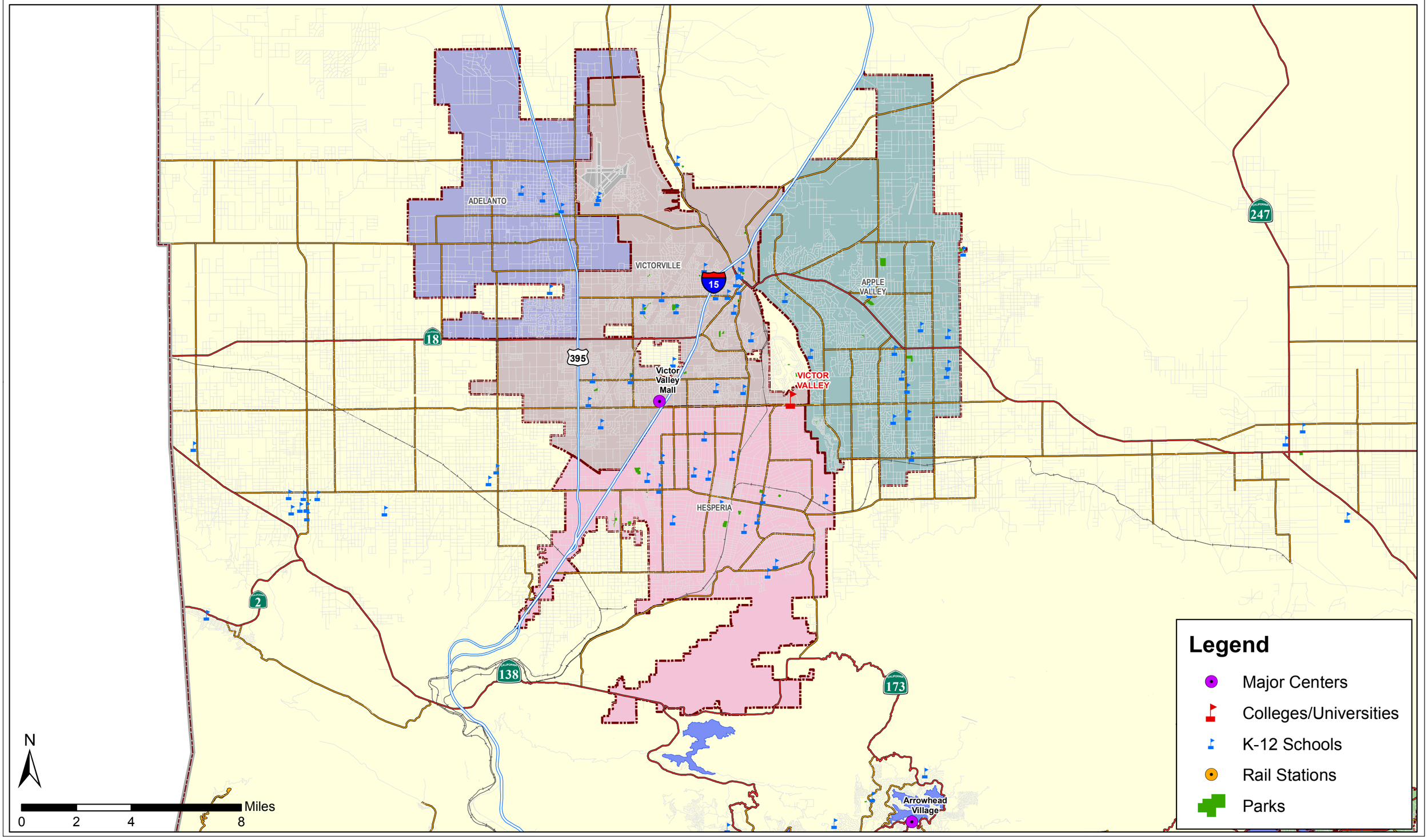
Overview Map
San Bernardino County West Valley

Legend

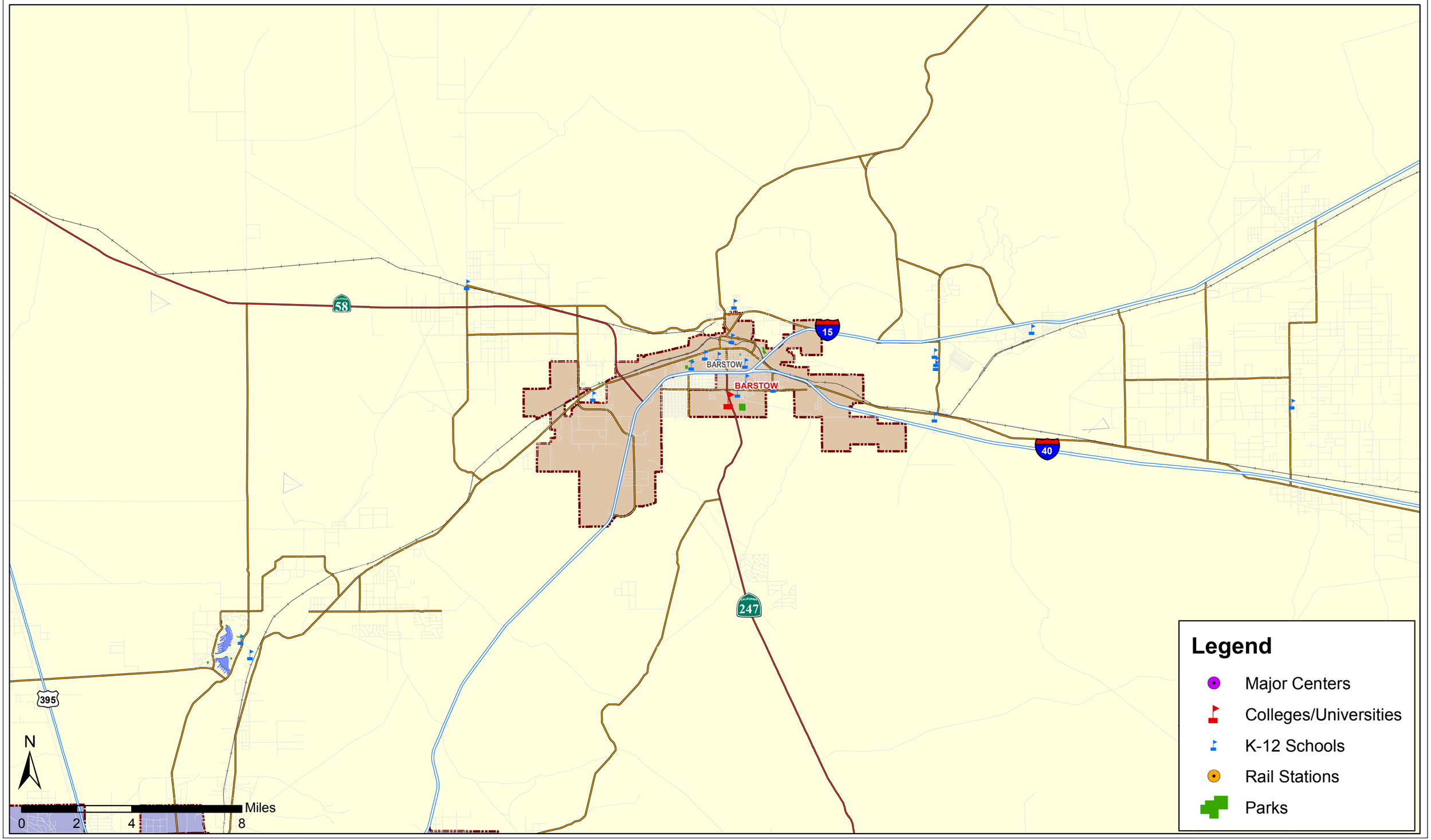
- Major Centers
- Colleges/Universities
- K-12 Schools
- Rail Stations
- Parks



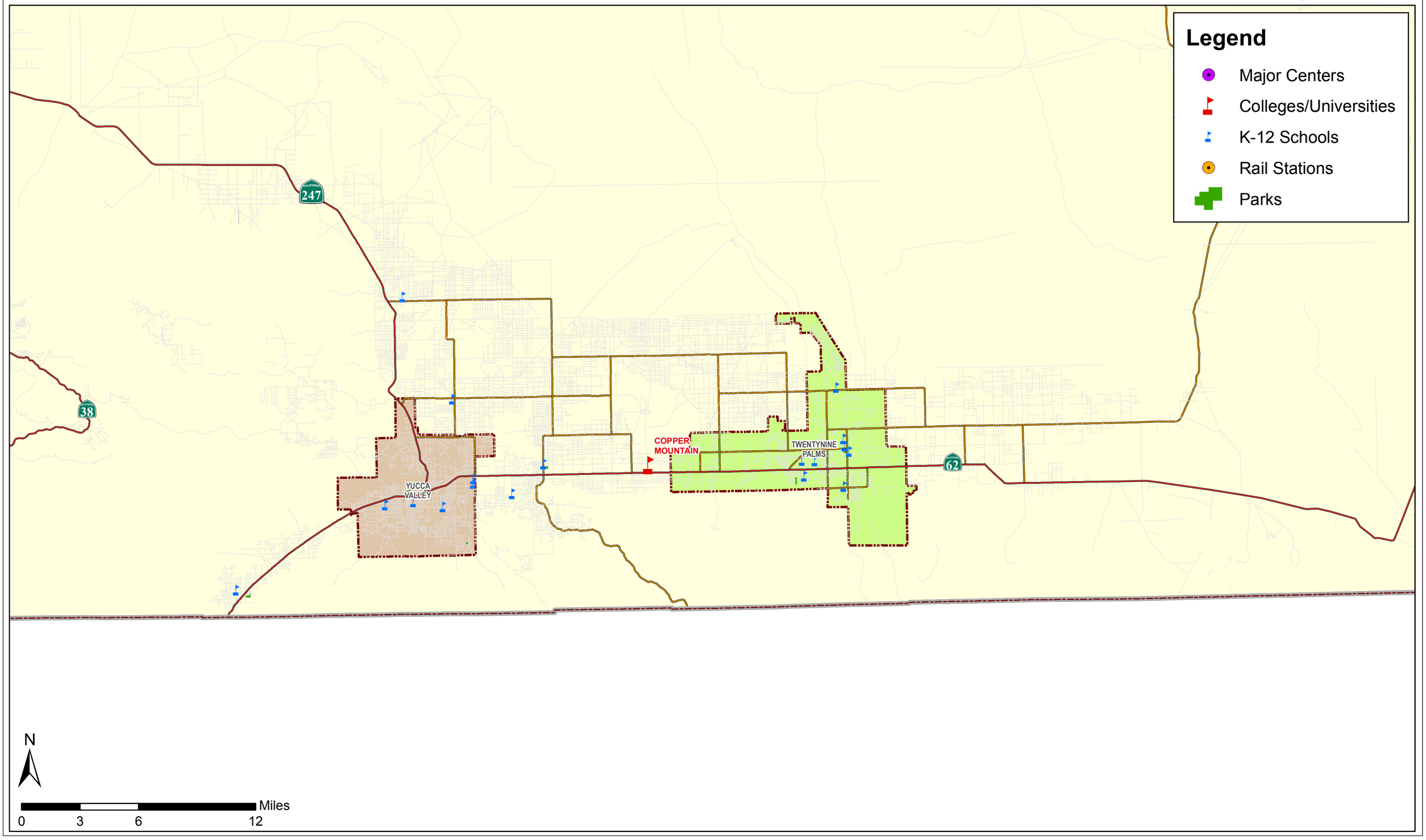
Overview Map
Victor Valley



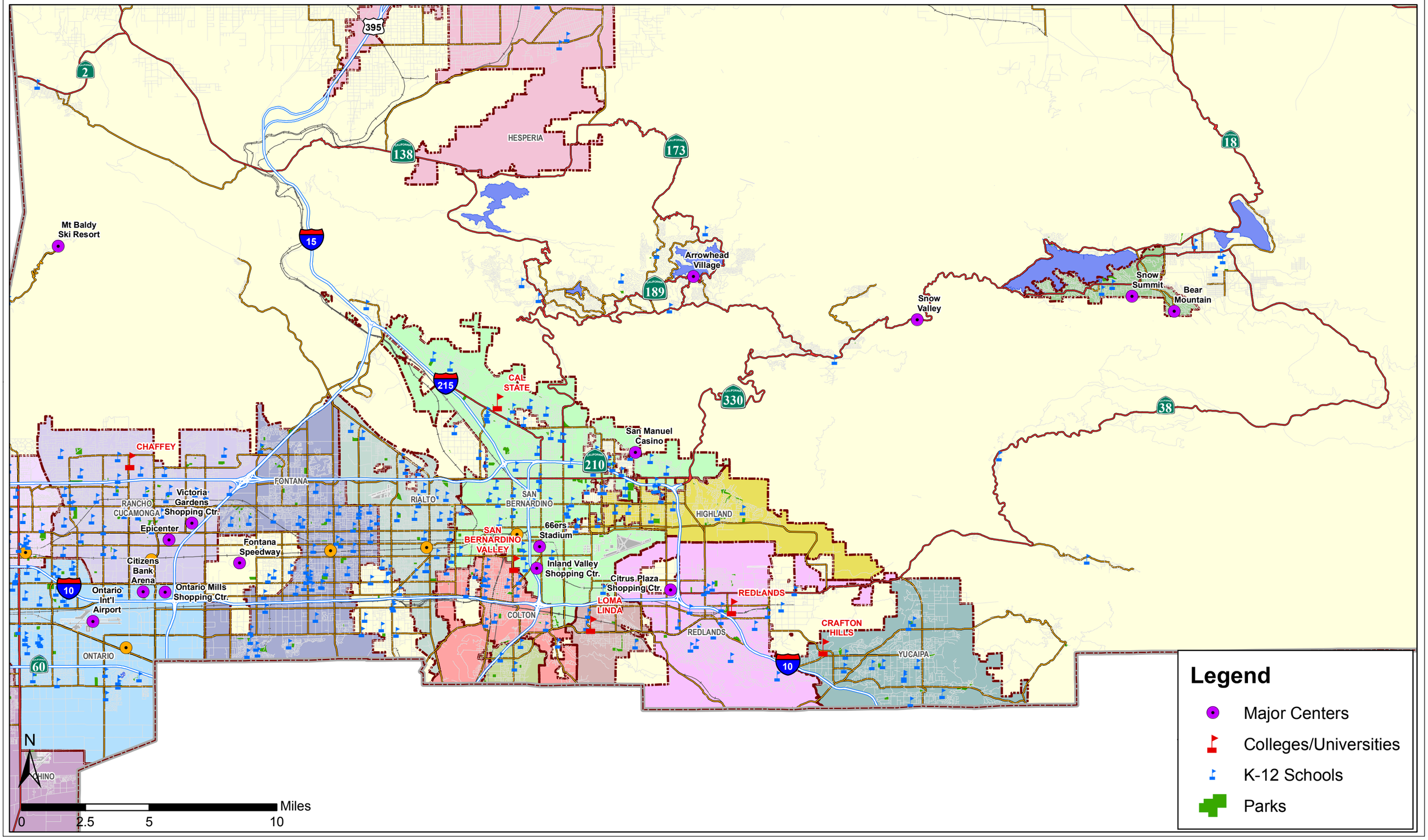
Overview Map
Barstow Area



Overview Map
Morongo Basin



Overview Map
Mountain Areas



Legend

- Major Centers
- Colleges/Universities
- K-12 Schools
- Parks

Overview Map
Needles Area

Legend

- Major Centers
- Colleges/Universities
- K-12 Schools
- Rail Stations
- Parks

40

NEEDLES

95

N

0 3 6 12 Miles

3.0 Bicycle Planning

The specific recommendations of the NMTP include bicycle facility development such as the completion of a regional bikeway network, provision of end-of-trip facilities, development of a regional way-finding system, and support of educational and promotional programs to be implemented over the next twenty years. These are listed more specifically at the end of Chapter 3. Three sections lead up to the listing of these recommendations:

- 3.1 – Classes of Bikeways
- 3.2 – Types of Bicycle Riders
- 3.3 – Estimates of Commuter Bicycle Trips
- 3.4 – Existing Bicycle Network
- 3.5 – Future Bicycle Network
- 3.6 – Recommendations for the Regional Bikeway System

3.1 Classes of Bikeways

San Bernardino County jurisdictions have made substantial progress in providing at least basic bicycle facilities in most of its subregions. All bikeways adhere to the standards described by the Caltrans Design Manual, the American Association of State Highway Transportation Officials (AASHTO) Guidelines for the Development of Bicycle Facilities, and the Manual of Uniform Traffic Control Devices (MUTCD) published by Federal Highway Administration. There are three classes of bikeways, as described below:

- **Class I Bikeway (Shared Use Path or Bike Path)**: A bikeway physically separated from any street or highway. Shared Use Paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. For an example, see the figure immediately below.

Figure 3.1 – Class I Bikeway Information

- **Class II Bikeway (Bike Lane)**: A portion of roadway that has been designated by striping, signaling, and pavement markings for the preferential or exclusive use of bicyclists. For an example, see the graphics immediately below.

Figure 3.2 – Class II Bikeway Information

- **Class III Bikeway (Bike Route)**: A generic term for any road, street, path, or way that in some manner is specifically designated for bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles, or are to be shared with other transportation modes. For an example, see the graphics immediately below.

Figure 3.3 – Class III Bikeway Information

- **Signed Shared Roadway or Signed Bike Route**: A shared roadway that has been designated by signing as a preferred route for bicycle use. These are Class III facilities under the Caltrans Design Standards.

3.2 Types of Bicycle Riders

Despite the advances various cities have made in facilitating bicycling, many individuals still have concerns about the safety of bicycle transportation. Other bikeway plans have used a typology to categorize riders based on their approach to bicycling. A brief description of the four types can be found in below.

Of course there are limitations to any model that puts individuals into categories. The four types are not intended to be rigid characterizations but rather provide insight into potential cycling market segments. A major premise of this plan is that the residents who are described as 'interested but concerned' will not be attracted to bicycle for transportation by the provision of more bike lanes, but may be more willing to ride if a network of low-stress bikeways is provided.

3.2.1 Type 1 - Strong and Fearless

This type of bicyclist (about 1 or 2 percent) will ride anywhere, regardless of the bicycle facility or lack thereof. They are comfortable on busy roads without bike lanes and may – in many circumstances – prefer to have no bicycle facilities at all.

3.2.2 Type 2 - Enthused and Confident

These bicyclists (about 10 percent) are comfortable on busy streets with bike lanes. They are the group that responds to many miles of bike lanes by riding.

3.2.3 Type 3 - Interested but Concerned

'Interested but concerned' bicyclists (about half) include the vast majority of County residents. They may occasionally ride on trails or bicycle boulevards, while on vacation or on an organized group ride. 'Interested but concerned' residents would like to ride more, but are reluctant because they do not feel safe near fast-moving traffic on busy streets, even when bike lanes exist. They would ride if they felt more comfortable on the roadways due to fewer and slower-moving cars or if more car-free alternatives were available.

3.2.4 Type 4 - Not Interested

This type includes approximately a third of residents, who are not going to ride a bicycle for transportation, either because they are uninterested or unable to do so.

3.3 Estimates of Commuter Bicycle Trips

County-level estimates of commuting by bicycle were presented in Chapter 1. City-level estimates of commute trips by bicycle within San Bernardino County are shown in Table 3-1. These statistics are drawn from the American Community Survey, over the period of 2006-2009. The statistics were derived from a survey sample, not the entire population, but were expanded to represent the entire population. Statistics for the unincorporated areas of the County are not included.

The table shows that the percentage of commute trips by bicycle is very low, only 0.4% overall. Only the City of Big Bear Lake had a percentage of greater than 1%. The cities with the highest percentages in the Valley were Chino, Loma Linda, and Redlands.

Table 3-1. City-level Percentage of Daily Commuter Trips by Bicycle (Source: American Community Survey, 2006-2009)

CITY	TOTAL COMMUTE TRIPS	% TRIPS BY BICYCLE
Adelanto	4,650	0.86%
Apple Valley	19,360	0.05%
Barstow	7,880	0.32%
Big Bear Lake	2,365	1.06%
Chino	26,470	0.81%
Chino Hills	31,770	0.17%
Colton	18,355	0.27%
Fontana	46,235	0.21%
Grand Terrace	5,790	0.43%
Hesperia	21,960	0.39%
Highland	16,595	0.30%
Loma Linda	8,090	0.80%
Montclair	12,250	0.65%
Needles	1,650	0.61%
Ontario	60,920	0.61%
Rancho Cucamonga	60,635	0.21%
Redlands	29,335	0.84%
Rialto	31,540	0.17%
San Bernardino	60,600	0.50%
Twentynine Palms	6,180	0.65%
Upland	31,570	0.25%
Victorville	22,025	0.45%
Yucaipa	1,7035	0.23%
Yucca Valley	5,735	0.00%
TOTAL	548,995	0.40%

Selected California cities were also analyzed as a basis of comparison against statistics for cities in San Bernardino County. For example, Santa Barbara has one of the higher rates at 3.1% of commuting trips by bicycle. This might be thought of as an aggressive goal for some of the cities in San Bernardino County such as Redlands and Loma Linda, each of which has a college/university as a major focal point. Davis, California, which has an extraordinary emphasis on cycling, still has a bicycle commuting percentage of less than 10 percent. The City of Sacramento is marginally over 1 percent. It would be significant achievement for San Bernardino County to double its bicycle commuting percentage over the next 20 years.

3.4 Existing Bicycle Network

3.4.1 Overview

San Bernardino County has some excellent non-motorized facilities already in place for both recreation and commuting. The following describes these assets in detail and their relationship to the NMTP.

The growth of the non-motorized system has been substantial during the past decade. In 2001, the combined total of centerline miles of bicycle infrastructure for all jurisdictions was 53 miles. As of 2011, the combined total of centerline miles of bicycle infrastructure for all jurisdictions is 468 miles. This represents an increase of 415 centerline miles and a 780% growth in the County's bicycle infrastructure.

Subarea maps of existing and proposed bicycle facilities are provided in Figures 3-4 through 3-10. The full set of maps may be referenced at the end of this chapter. Additional information and tabular summaries of existing and proposed route mileage are provided for each individual jurisdiction in Chapter 5.

3.4.2 Existing Regional Non-Motorized Assets

San Bernardino County has some excellent non-motorized facilities already in place for both recreation and commuting. The following describes these assets and their relationship to the NMTP.

Pacific Electric Trail

The Pacific Electric Trail is a shared use path for bicyclists and pedestrians located in the San Bernardino Valley. Once used as a right-of-way for the Pacific Electric Rail Line and bought by SANBAG, this path traverses cities in both Los Angeles and San Bernardino counties. Currently the path is paved from Pomona College in Claremont to the eastern city boundary of Fontana. Rialto is planning on extending it further east.

Santa Ana River Trail

Stretching from the Pacific Ocean in Huntington Beach to the Inland Empire, the Santa Ana River Trail is a long Class I Bikeway that connects three counties along the Santa Ana River. The current terminus of the trail is in the Hospitality District of San Bernardino, but plans are underway to extend it into Redlands and Highland.

Flood Control Channels

There are various flood control channels throughout the County. Through an agreement with the Flood Control District of San Bernardino County's Department of Public Works, bicyclists are allowed to use the access roads adjacent to flood control channels when gates are open. These

roads are considered Class I bikeways or share use paths and are an excellent and safe option for the bicycle commuter or enthusiast.

Power Line Corridors

Similar to the flood control channels, paved access roads next to large power lines are legal for cyclists' use when not in use by utility workers or officials from Southern California Edison or the Los Angeles Department of Water and Power. There is no danger of radiation or electrical hazard by bicyclists or pedestrians under power lines.

Cajon Pass Connector – Route 66 Heritage Trail

Although not yet fully realized as a complete Class I Bikeway, the Cajon Pass Connector will someday connect the Victor Valley to the San Bernardino Valley via the Cajon Pass. Once complete, this bikeway will provide a seamless and safe method of bicycle transportation from the Glen Helen area to State Route 138 on the Historic Route 66 (Cajon Boulevard).

Orange Blossom Rail Trail

Just like the Cajon Pass Connector, the Orange Blossom Rail Trail is an incomplete Class I Bikeway. With sufficient funding and planning, this bikeway through Redlands will provide exceptional multimodal connectivity to the nearby Santa Ana River Trail and the planned Redlands Rail.

3.5 Future Bicycle Network

In addition to the above-mentioned existing regional assets that span across cities, many jurisdictions have developed their own Class I, Class II, and/or Class III bikeways. Collectively, these represent the bikeways portion of the NMTP. Figures 3-4 through 3-10 showcase these future facilities at the subarea level. Table 3-2 summarizes the total centerline mileage of existing and planned bicycle network by class. These mileage totals represent a summation of those in the individual jurisdiction plans. Because some of the planned facilities represent conversions from one class to another, the total existing plus planned is a slight over-counting of the actual mileage expected when the plan is complete.

Table 3-2. Summary of Existing and Planned Bicycle Network Centerline Mileage
(Note: Total existing plus planned represents a slight over-representation of the future network totals – see text.)

	Class I	Class II	Class III	Total
Existing	78.1	270.1	116.3	464.5
Planned	277.9	756.6	247.6	1282.1
Total	356.0	1026.7	363.9	1746.6

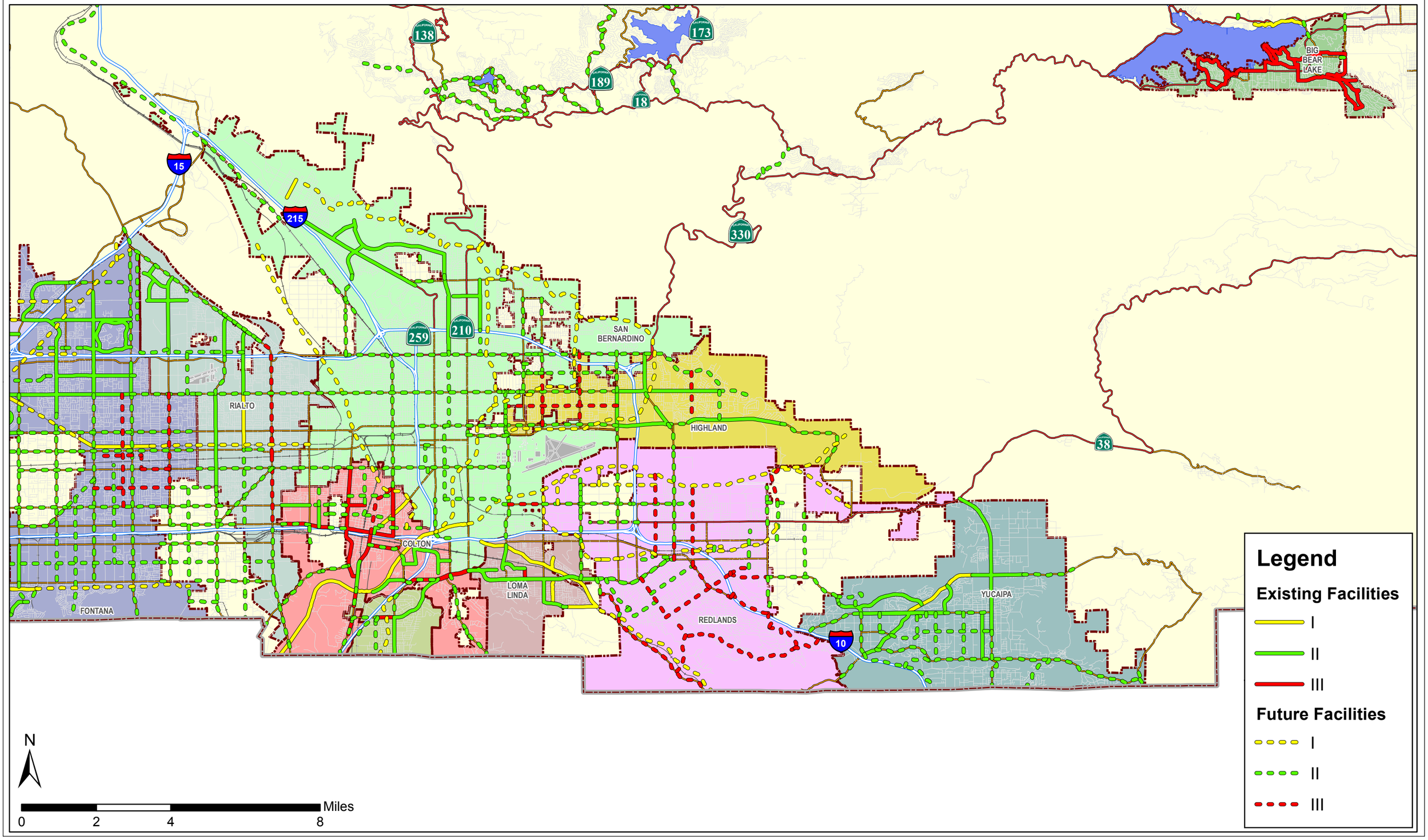
The local jurisdiction plans in Chapter 5 are drawn from the subarea maps and provide a more detailed discussion on specific bikeway facilities, end-of-trip facilities, and project priorities, where appropriate. Chapter 6 addresses design considerations when implementing bicycle facilities. Chapter 7 presents an overall implementation strategy and priorities.

3.6 Recommendations for the Regional Bikeway System

Specific project lists, recommendations, and priorities are contained in the individual jurisdiction bicycle plans in Chapter 5. This section provides recommendations that are regional in nature, with emphasis on the physical infrastructure in San Bernardino County. Chapter 7 presents an implementation strategy that takes these a step further, and provides regional priorities.

1. Deliver the Class I, II and III identified in the subarea maps referenced in Chapter 3. Although the Class I facilities can be considered a backbone bicycle system, there is much more to the network than just Class I facilities. Other types of facilities can also be delivered more quickly and less expensively, improving regional connectivity.
2. Develop better bicycle connectivity between cities and subareas of the County by coordinating the location and staging of network improvements. This must include improved collaboration with Caltrans, given the number of State highways connecting the subareas. Connectivity on Class II and Class III bicycle facilities can be increased by prioritizing the "low-hanging fruit" – parts of the regional system that are low-cost, close gaps in the system, and provide connections to key destinations.
3. Develop a better "sense of a system" through improved signage, markings, and way-finding for both cyclists and pedestrians.
4. Develop an improved inventory of end-of-trip facilities, particularly at transit stations, schools, other public buildings, and major employment centers.
5. Proactively coordinate integration of cycling and walking accommodations with the State's Complete Streets requirements.
6. Proactively coordinate integration of cycling and walking access accommodations to and from transit stations.
7. Continue safety education and promotion of cycling through schools, newsletters, and public websites.

Bicycle Facilities
San Bernardino County East Valley



Bicycle Facilities
San Bernardino County West Valley

Legend

Existing Facilities

- I
- II
- III

Future Facilities

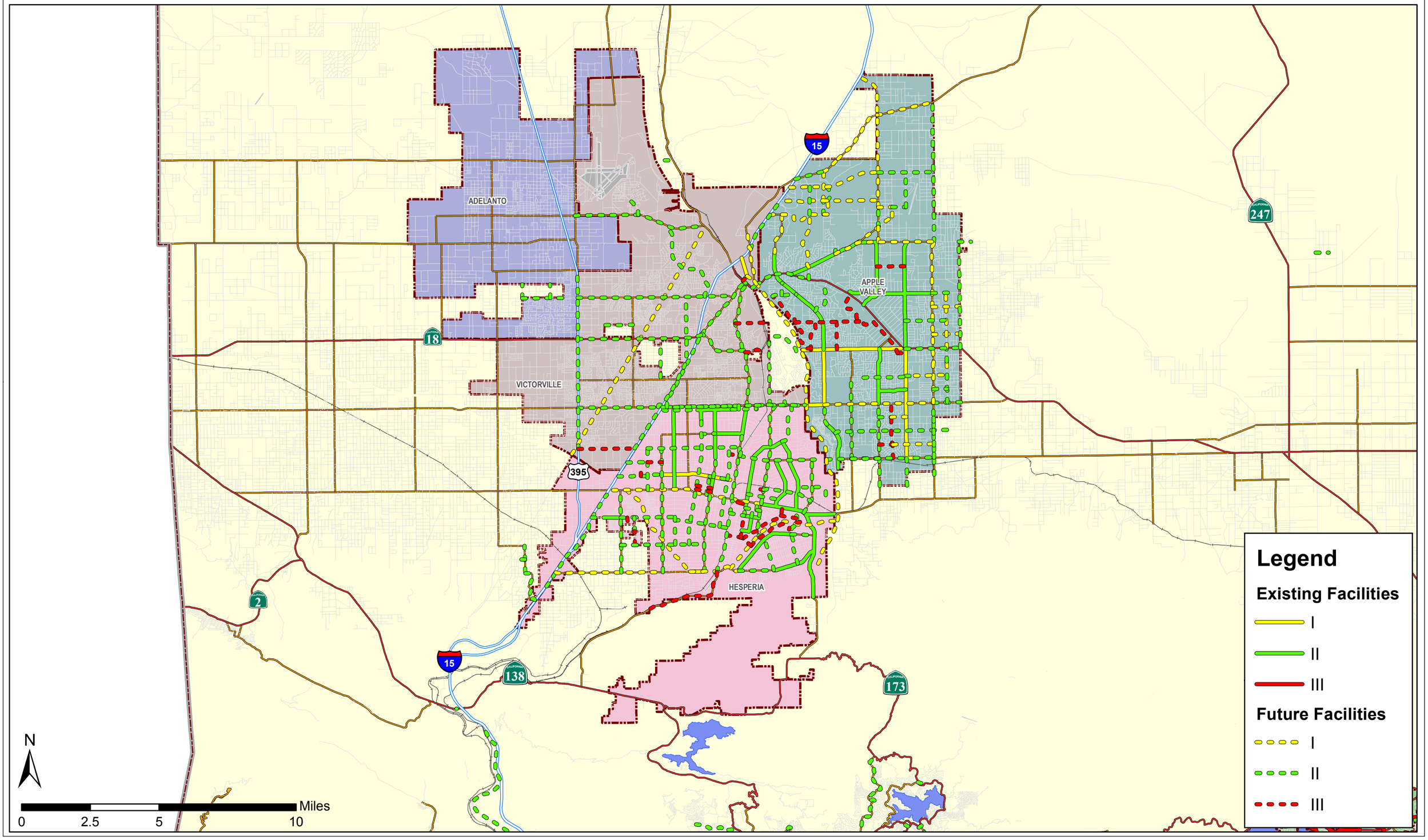
- I
- II
- III

RANCHO CUCAMONGA
UPLAND
ONTARIO
CHINO
CHINO HILLS
FONTANA
RIALTO
SAN BERNARDINO
COLTON
LOMA LINDA
15
215
18
259
210
10
60
83
142
71

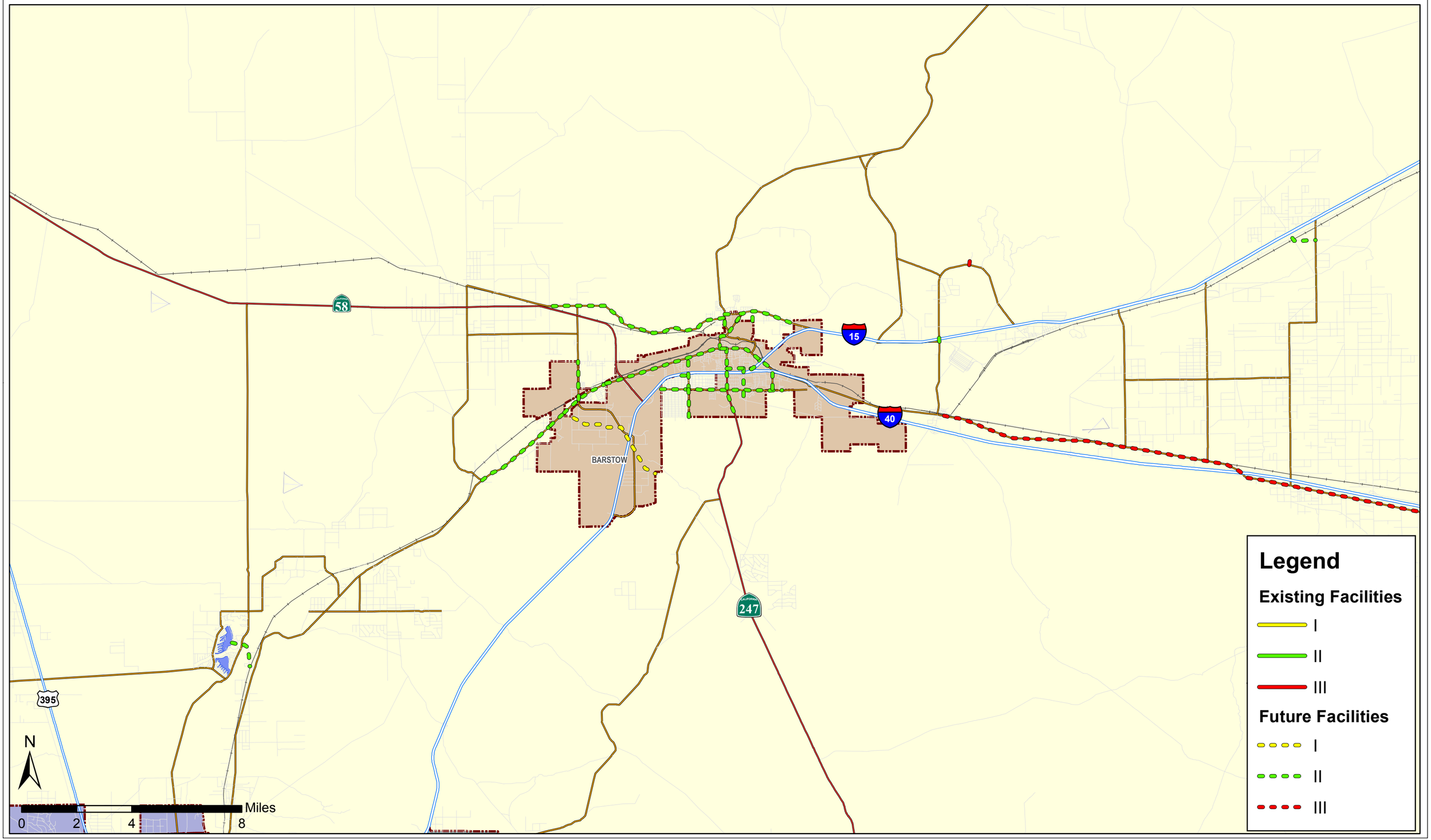
N

0 2 4 8 Miles

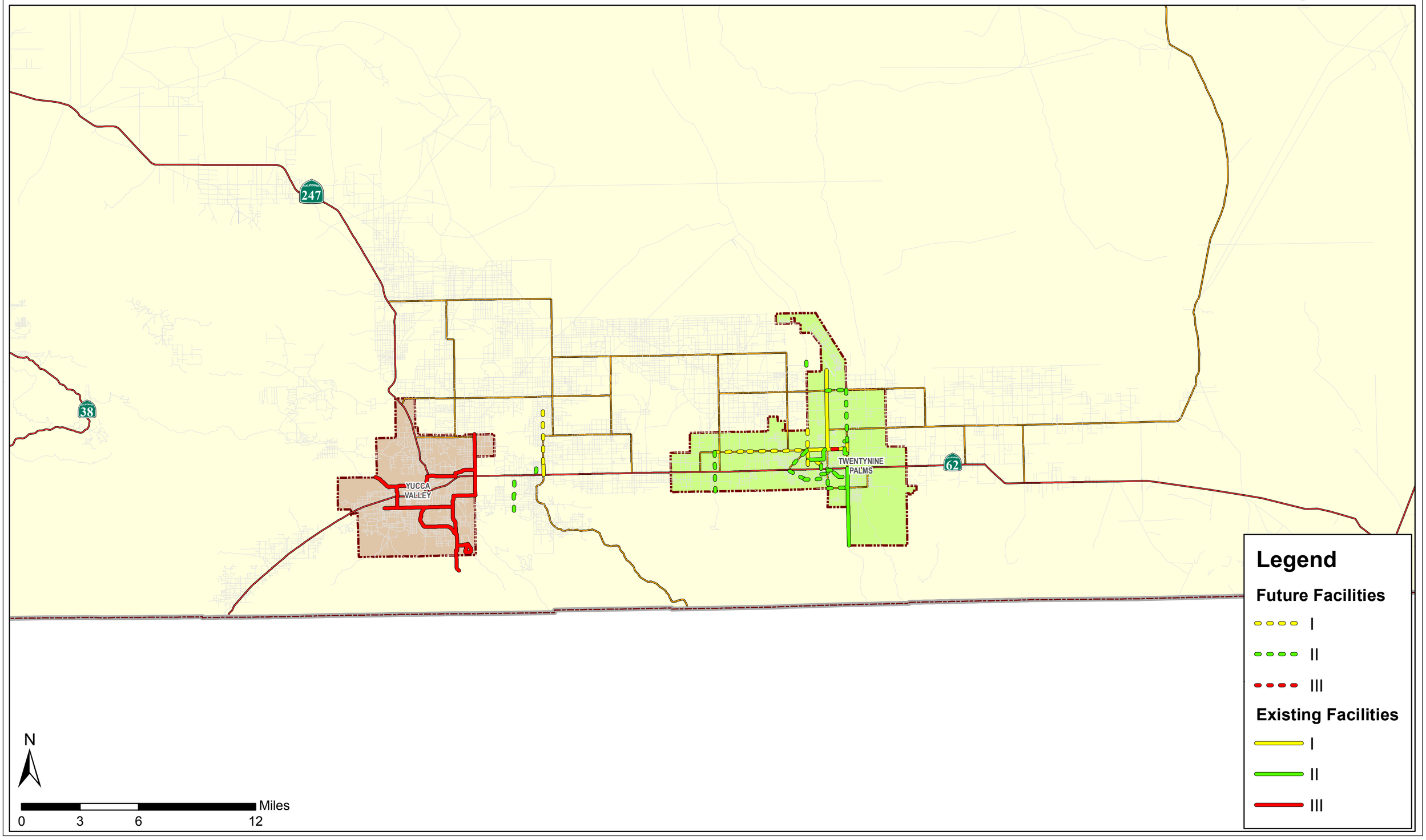
Bicycle Facilities
Victor Valley



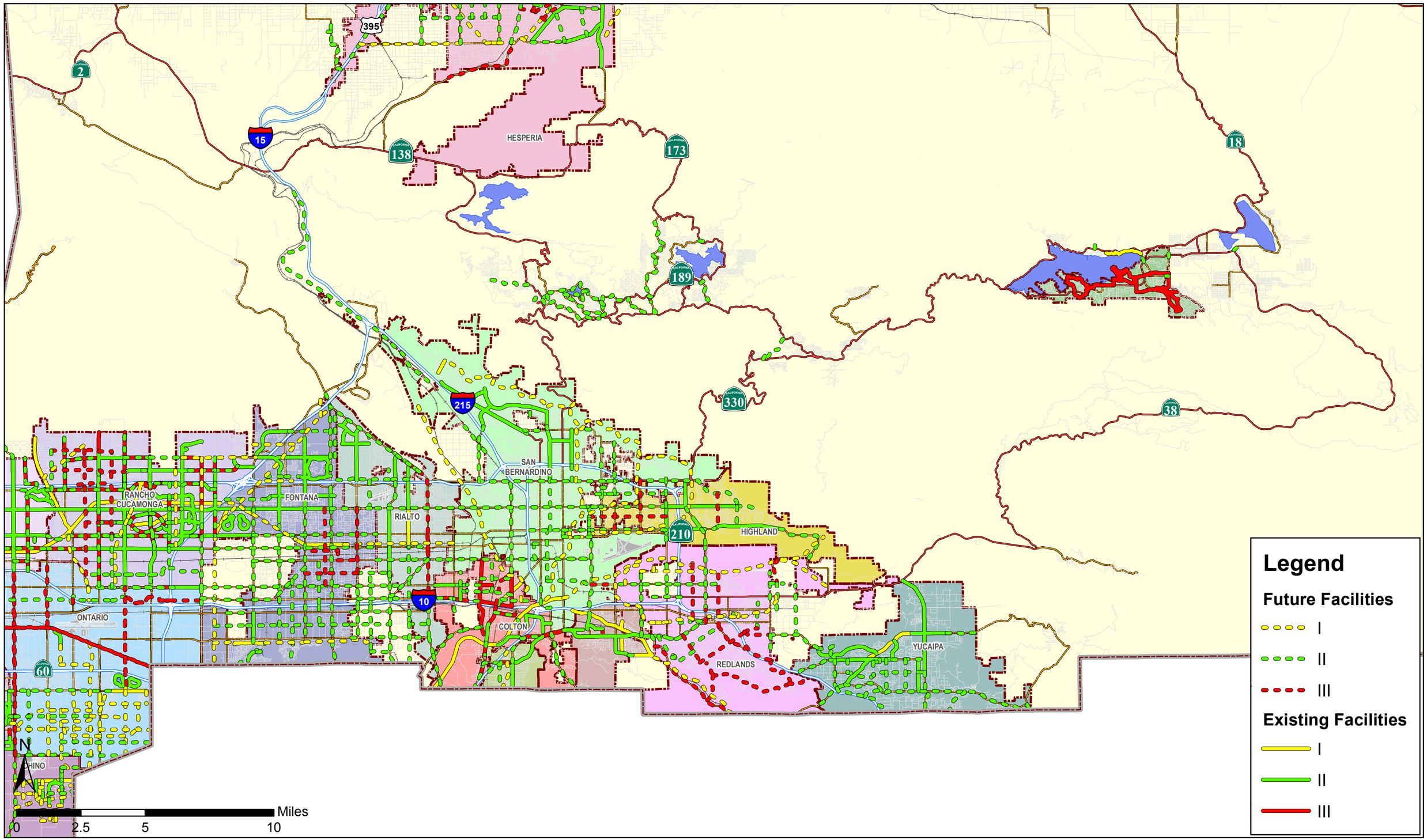
Bicycle Facilities
Barstow Area



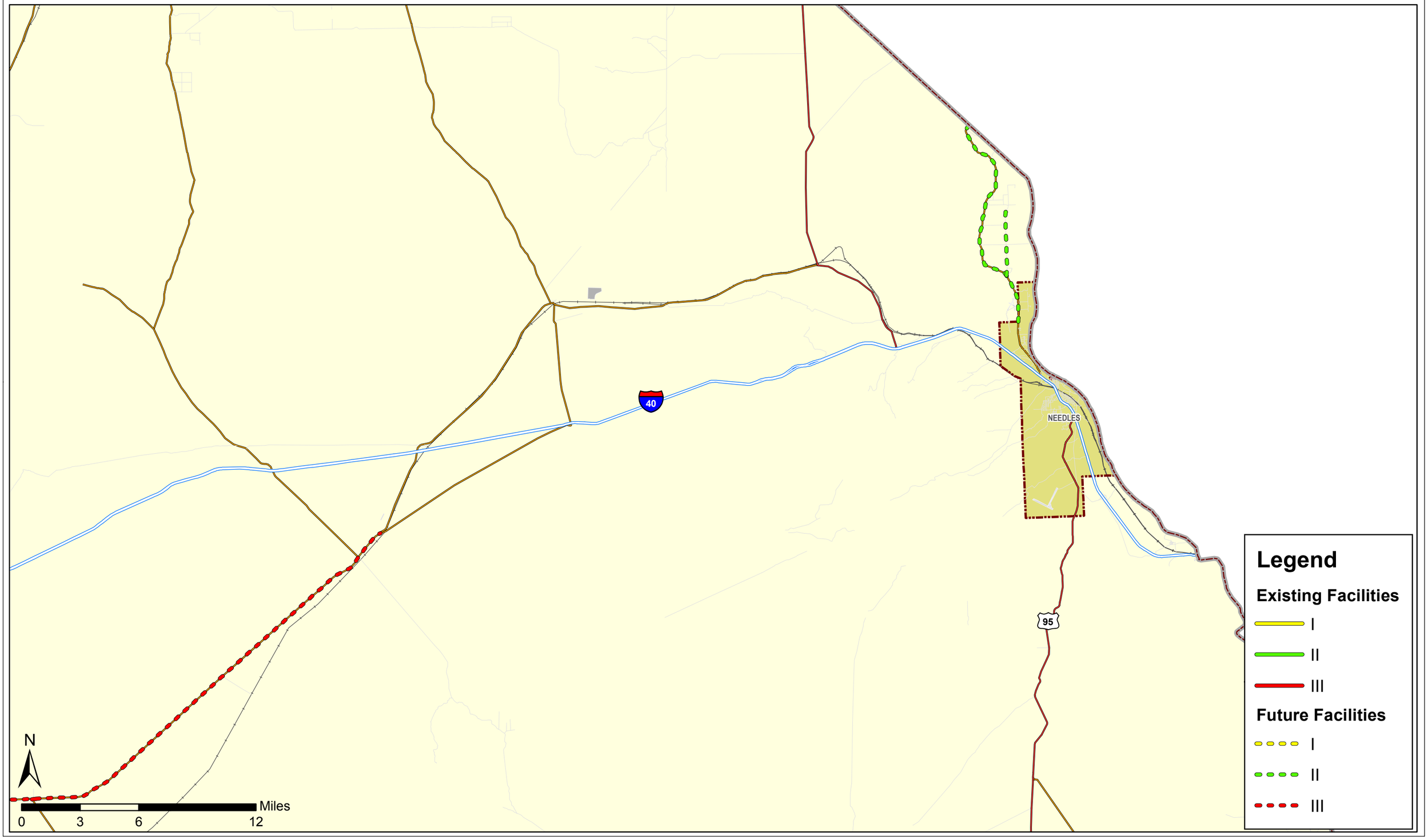
Bicycle Facilities
Morongo Basin



Bicycle Facilities
Mountain Areas



Bicycle Facilities
Needles Area



4.0 Pedestrian Planning

4.1 Issues in Pedestrian Access and Mobility

It is often perceived that pedestrian transportation is essentially a local concern, given the length of most pedestrian trips and the manner in which these trips are usually contained within a given area, whether that area is a schoolyard, a shopping center, a college campus or a downtown business district.

At the same time, federal legislation and funding programs reminds us that regional, state and federal levels of government all have a stake in designing the multi-modal transportation system to serve the needs of all travelers. It is often said that pedestrian planning is a part of "alternative transportation planning," yet there is no more basic mode of transportation than getting around on foot. Indeed, no trip involving a car, bus, train, airplane or other mode can even begin without a pedestrian journey taking place. Regional transportation facilities such as airports and transit stations must be designed around the needs of the pedestrian if they are to fulfill their mission.

Unfortunately, as American society moved to develop the systems necessary to accommodate the automobile, many of the values associated with pedestrian transportation have been diminished, if not lost. This is not a phenomenon unique to Southern California. As highway and street design standards have evolved over the past fifty years, the problems of insufficient pedestrian access, diminished safety and difficult trip making have been repeated across the country.

City-level statistics on commute trips by walking within San Bernardino County bear this out, as shown in Table 4-1. The percentage of commute trips by walking are drawn from the American Community Survey, over the period of 2006-2009. The statistics were derived from a survey sample, not the entire population, but were expanded to represent the entire population. Statistics for the unincorporated areas of the County are not included.

The table shows that the percentage of commute trips by walking is very low, less than 1% overall. Some of the smaller communities actually show larger walk trip shares, presumably because the work locations and homes are fewer and therefore in closer proximity. However, caution should be exercised in reading too much into the data for the cities with smaller sample sizes. Loma Linda has the highest walk trip percentage in the Valley, at 2.3%. This is consistent with presence of the large hospital and educational complex in Loma Linda. The City of Redlands was next, with 1.7% of commute trips by walking. The City of Big Bear Lake was shown to have the largest walk trip percentage at 7%.

It is not possible for a single regional plan to either identify all the liabilities and shortcomings of the pedestrian environment or to plan and fund their correction. Many of the issues and concerns are appropriately addressed at the local or even neighborhood level. At the same time, this plan can identify priorities for the use of regionally administered funds to meet common regional needs.

For purposes of this plan, the following activities are considered regional priorities for pedestrian planning and project development:

1. Improving pedestrian access to transit;

2. Removing existing barriers to pedestrian travel;

3. Development of regional trails and pathways which provide improved pedestrian access to destinations;

4. Improvement of the pedestrian environment on major regional arterials and at regional activity centers.

Table 4-1. City-level Percentage of Daily Commuter Trips by Walking (Source: American Community Survey, 2006-2009)

CITY	TOTAL COMMUTE TRIPS	% TRIPS BY WALKING
Adelanto	4,650	1.6%
Apple Valley	19,360	0.8%
Barstow	7,880	2.7%
Big Bear Lake	2,365	7.0%
Chino	26,470	1.4%
Chino Hills	31,770	0.3%
Colton	18,355	1.0%
Fontana	46,235	0.6%
Grand Terrace	5,790	0.2%
Hesperia	21,960	0.2%
Highland	16,595	0.5%
Loma Linda	8,090	2.3%
Montclair	12,250	1.2%
Needles	1,650	4.2%
Ontario	60,920	0.8%
Rancho Cucamonga	60,635	0.6%
Redlands	29,335	1.7%
Rialto	31,540	0.9%
San Bernardino	60,600	1.4%
Twentynine Palms	6,180	1.2%
Upland	31,570	1.0%
Victorville	22,025	0.3%
Yucaipa	1,7035	0.6%
Yucca Valley	5,735	1.0%
TOTAL	548,995	0.9%

4.2 Regional Pedestrian Facility Programs

The following program concepts describe potential elements of a regionally based pedestrian transportation effort:

4.2.1 Transit Access

One of the most significant regional benefits of improved pedestrian access and safety involves the support of local and regional transit systems. All transit agencies rely heavily on pedestrian access as a core of their ridership base, indeed, public transit is a safety net for those citizens who do not have access to an automobile.

It is critical that this core customer base have access to transit service, yet in many, if not most areas of San Bernardino County, there are few efforts being made to ensure that pedestrians have systems which promote safety, continuity, connectivity and accessibility. Local jurisdictions should work cooperatively with transit agencies to assess walking conditions within 600 – 1200 feet of any transit stop. Most transit patrons are willing to walk at least this distance if facilities are present and safe. Local transit systems also have an interest in working with local jurisdictions to ensure that there is an ADA compatible access route to all transit stops, including pads adequate in size to accommodate wheelchair loading systems while maintaining a clear walking path.

In addition, land use codes can do much to ensure that new development serves the needs of transit. In new residential subdivisions, care should be taken to ensure that pedestrians can walk within a reasonable distance to access local transit service. This can be provided by including “pass-through” pathways between cul-de-sac streets and adjacent arterials. While many residential developments minimize vehicular access in an effort to cut down local “cut-through” traffic, these same developments must maintain good pedestrian access to destinations within and adjacent to the development.

Commercial development also can provide a significantly more amenable environment for pedestrians through careful site planning. Orientation of business entrances to the street can make for a quicker pedestrian trip from transit to destination, while inclusion of overhangs, shade, and shelter near transit stops can make for improved and pleasant waiting times for transit patrons. Many communities encourage development of businesses such as newsstands, coffee shops and cafes near major transit stops and centers to make these facilities more active, safer and more pleasant.

A significant initiative of SANBAG and local jurisdictions is to plan for more walkable communities within and around transit station areas. This is being accomplished through the development of the Sustainable Communities Strategy (SCS), which will become part of the SCAG Regional Transportation Plan. The SCS is looking at better ways to plan land use around transit stations and to provide ped/bike connectivity and amenities that encourage non-motorized modes. The SANBAG Long Range Transit Plan provides mapping of existing and future transit alignments and station areas around which this planning may occur. A map of the future LRTP system was presented in Chapter 1.

4.2.2 Preventing and Eliminating Barriers to Pedestrian Travel

Planning for improved pedestrian access is relatively simple, but often overlooked. One needs to simply think about the directions/destinations from/to which people are walking and determine how to accommodate those paths. This is best done at the "prevention stage" through good site planning, to include both internal and external pedestrian circulation. It is more difficult and costly to eliminate barriers once they are there.

But the stage can be set with some overarching principles and guidelines. The document *PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System* (Federal Highway Administration report FHWA-SA-04-003, September 2004) provides many examples of pedestrian design treatments suitable for use throughout San Bernardino County. Chapter headings include:

- Pedestrian Facility Design: Sidewalks and Walkways, Curb Ramps
- Roadway Design: Bicycle Lanes, Roadway Narrowing, Lane Reduction
- Intersection Design: Roundabouts, Intersection Median Barriers
- Traffic Calming: Curb Extensions, Chicanes, Speed Tables

Information on PEDSAFE may be found at the following link:
http://www.fhwa.dot.gov/research/deployment/pedsafe.cfm

4.2.3 Development of Regional Trails and Pathways

From the pedestrian perspective, the development of trails and pathways can provide an important supplement to other local efforts and systems to improve pedestrian facilities. Such facilities, to have a significant pedestrian benefit, must connect numerous destinations and trip origins within reasonable walking distance, provide a unique access not afforded by other street and sidewalk systems and should be a more pleasant and safer place to walk than other existing alternatives.

Many trails utilize existing corridors such as abandoned rail lines, power corridors, pipelines and even limited access rights of way. Other communities have built smaller walkways through downtown areas through dedication of a narrow strip easement on one property edge, allowing development of a pathway system to occur over time as properties develop in a business district.

4.2.4 Providing a Better Pedestrian Environment on Major Regional Arterials and at Activity Centers

Clearly, a number of strong regional and local interests converge at locations with high activity, whether the activity is in the form of auto traffic, pedestrians, or where many business and employers locate. From the regional perspective, the improvement of these corridors and districts can assist transit agencies, business development districts and traditional downtowns.

Many examples exist of improvements to Main Street districts throughout the County. New business developments seek to create a vibrant, busy sense of place in indoor malls and centers; trying ultimately to replicate the environment of the successful downtown street. Such districts are an important amenity to support regional transit efforts, as concentrations of activity allow transit to effectively serve larger numbers of commuters, shoppers and visitors with a more efficient system.

While there are many examples of pedestrian malls that have developed in Southern California in the past 40 years, it is not necessary or obligatory to ban automobiles entirely to create a more attractive downtown or business district. While successful projects such as the 3rd Street Promenade in Santa Monica do exist, similarly successful projects have retained auto access while simultaneously created more pleasant pedestrian environments through expansion of walkways, introduction of more street level activity, preservation of street trees and shade and the promotion of activities such as street fairs and farmers markets to create the energy needed to make these districts a commercial was well as transportation success.

5.0 Local Jurisdiction Plans

5.1 Overview

Chapter 5 represents the heart of the Non-Motorized Plan for bicycle facilities. The chapter contains individualized plans for each of the 25 jurisdictions in San Bernardino County, with emphasis on the bicycle system. The plans all contain the same structure, including the following elements:

- The population of the jurisdiction
- An overview of the jurisdiction, including uniquely tailored commentary about its geography or historical elements.
- A summary of the jurisdiction's existing and proposed land use.
- A map of the jurisdiction's General Plan land use coverage, including information on schools, parks, residential, commercial and industrial land uses.
- A map of the jurisdiction's existing and proposed bicycle facility networks.
- A textual description of the existing non-motorized condition.
- A textual description of the jurisdiction's past investment in non-motorized infrastructure
- A textual description of the jurisdiction's non-motorized priorities, if any.
- Tables that document existing, future and priority bicycle facility projects with class, mileage, and estimated costs.
- A summary table of multi-modal connections.
- Documentation of municipal code pertaining to the provision of non-motorized serving infrastructure, if available.
- A summary of non-motorized serving infrastructure, including bike racks, bike lockers and shower facilities where identified.
- A table with collision information and an analysis as to how the number of collisions relates to the state average.
- Information on jurisdiction safety and education programs related to non-motorized transportation.

One important note while reviewing the local jurisdiction plans relates to the costs used. The cost estimates used to value existing improvements and the cost estimates used to project the cost of future improvements are planning level costs based on a cost per mile assumption. The cost assumption used for Class I facilities is $1,000,000 per mile, the cost assumption used for Class II facilities is $50,000 per mile and the cost assumption for Class III facilities is $30,000 per mile. These cost assumptions were derived from a review of other similar plans and a review of construction averages for the State of California.

All cost estimates are planning level, and do not include feasibility, environmental clearance or right-of-way acquisition. Project-specific factors such as grading, landscaping, intersection modification, path/trail amenities and right-of-way acquisition may increase the actual cost of construction, sometimes significantly. The estimates are primarily used to develop an understanding for the order of magnitude of investment that will be required to implement the plan.

5.2 Local Jurisdiction Plans

The remainder of this chapter presents local jurisdiction non-motorized transportation plans, with an emphasis on bicycle facilities and statistics. The plans are presented in alphabetical order by jurisdiction. Each plan begins on a new page. (Note: in this draft version of the plan the figure and table numbers are omitted. They will be added in the final, and text formatting may be modified.) The following jurisdictions are represented:

- City of Adelanto
- Town of Apple Valley
- City of Barstow
- City of Big Bear Lake
- City of Chino
- City of Chino Hills
- City of Colton
- City of Fontana
- City of Grand Terrace
- City of Hesperia
- City of Highland
- City of Loma Linda
- City of Montclair
- City of Needles
- City of Ontario
- City of Rancho Cucamonga
- City of Redlands
- City of Rialto
- City of San Bernardino
- County of San Bernardino
- City of Twentynine Palms
- City of Upland
- City of Victorville
- City of Yucaipa
- Town of Yucca Valley

City of Adelanto

Population

28,540

City Overview

Incorporated in 1970, the City of Adelanto is located in the California High Desert, approximately 35 miles north of San Bernardino and approximately 60 miles northeast of Los Angeles. The City is located northwest of the City of Victorville and immediately west of the former George Air Force Base.

Land Use

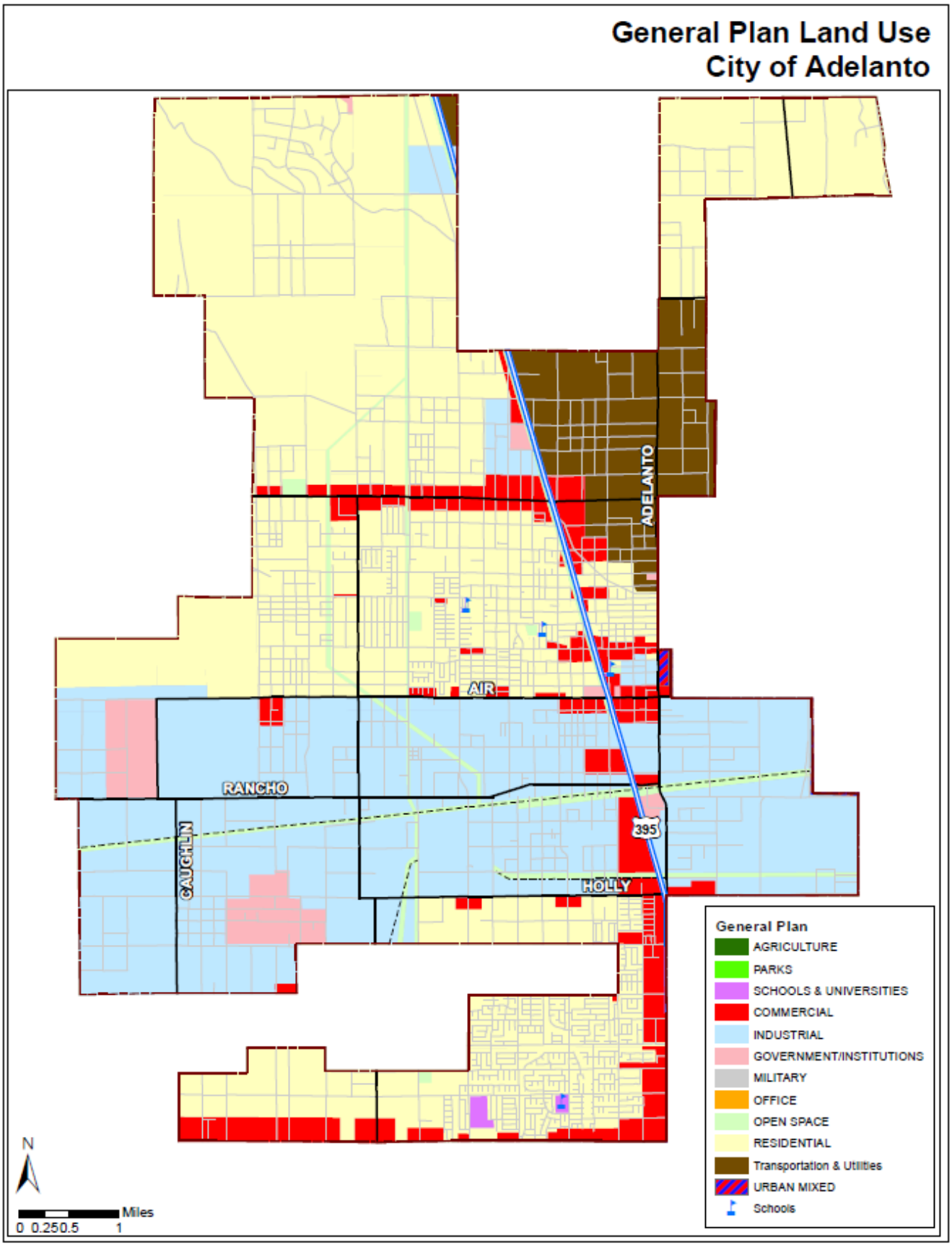
The City of Adelanto is one of San Bernardino County's biggest incorporated municipalities in terms of land area with just over 53.5 square miles of land area. The City has a tremendous amount of developable land remaining, including but not limited to areas designated for residential, commercial, office, industrial, and airport development. US Route 395 serves as the major north-south arterial roadway and Air Expressway serves as the major east-west arterial roadway within the City.

Existing Conditions:

There are currently no designated bicycle facilities within the City of Adelanto.

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Adelanto has not constructed any designated bicycle infrastructure improvements within the City.


General Plan Land Use
City of Adelanto
ADELANTO
AIR
RANCHO
CAUCHLIN
395
HOLLY
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
N
Miles
0 0.250.5 1

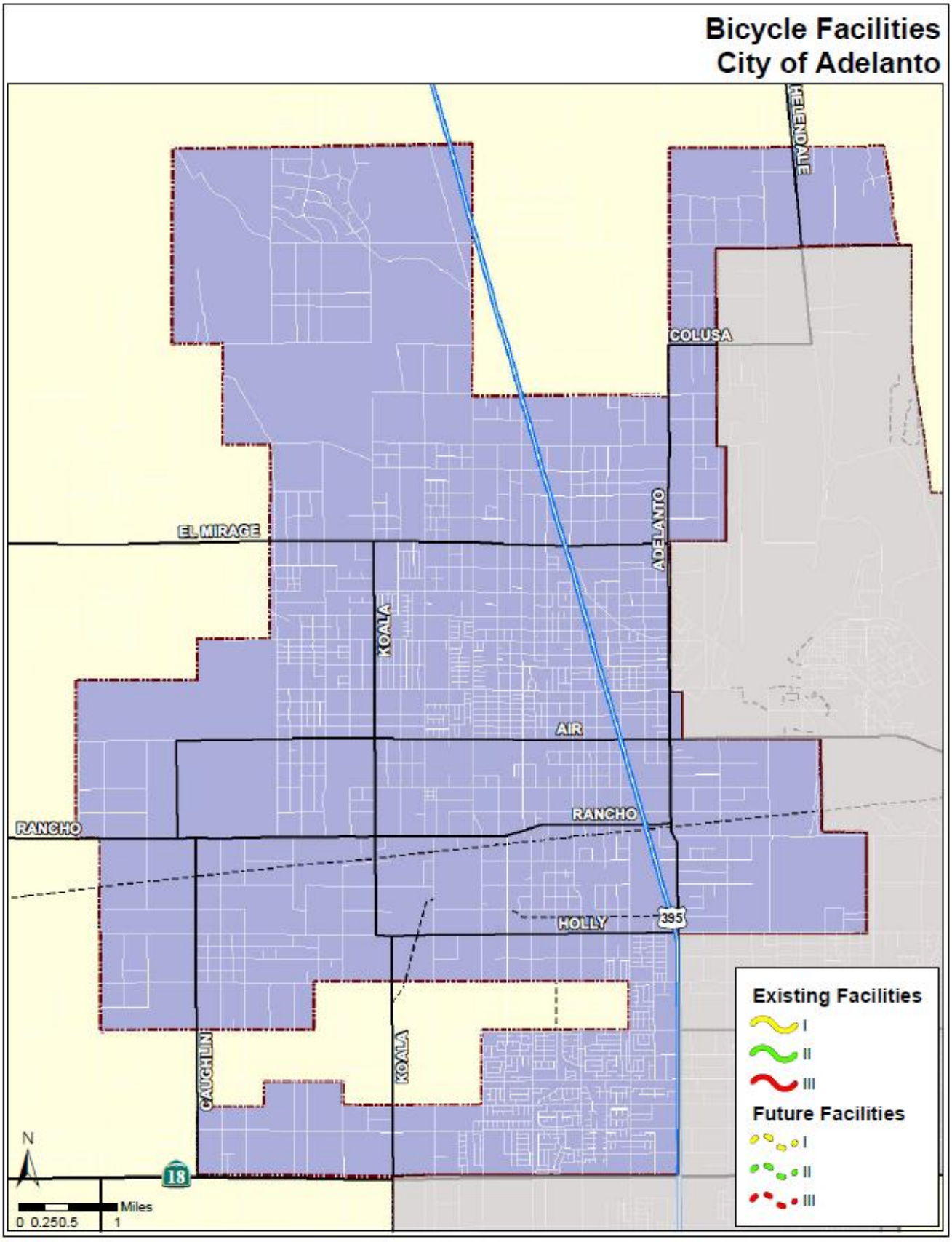

Bicycle Facilities
City of Adelanto
HELENDALE
COLUSA
EL MIRAGE
ADELANTO
KOALA
AIR
RANCHO
RANCHO
HOLLY
395
CAUGHLIN
KOALA
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
18
Miles
0 0.250.5 1

Table __:
Adelanto Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Proposed Improvements

The City of Adelanto has no proposed future non-motorized improvements. The City is examining the potential of re-evaluating the traffic distribution and circulation throughout the City, and will be looking into developing a more accessible pedestrian and non-motorized plan to encourage lower vehicular emissions and strengthen its commitment to its healthy community's initiative.

Table __:
Adelanto Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

The City of Adelanto adopted Ordinance 130 in 1978 per the Municipal Code section 10.36.030, which established a City-wide bicycle trail system and associated design standards. The purpose of the system was to establish a long range plan for the City that would encourage the development and use of bicycles for commuter-oriented transportation. The ordinance has not been updated since 1978. The city is examining the potential of reviewing the ordinance and amending it to reflect the changes that have impacted the circulation design of the City since 1978 and incorporating additional safety and esthetic design changes to enhance the non-motorized facilities.

End of Trip Facilities

The City of Adelanto has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes. The City of Adelanto also possesses bicycle lockers at its City Hall.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	9
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	1.8
Average Bicycle Collision Rate per 1000/year[1]	0.08
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Adelanto does not participate in safety or education programs specific to non-motorized transportation or the placement of non-motorized transportation facilities.

Town of Apple Valley

Population

69,861

Town Overview

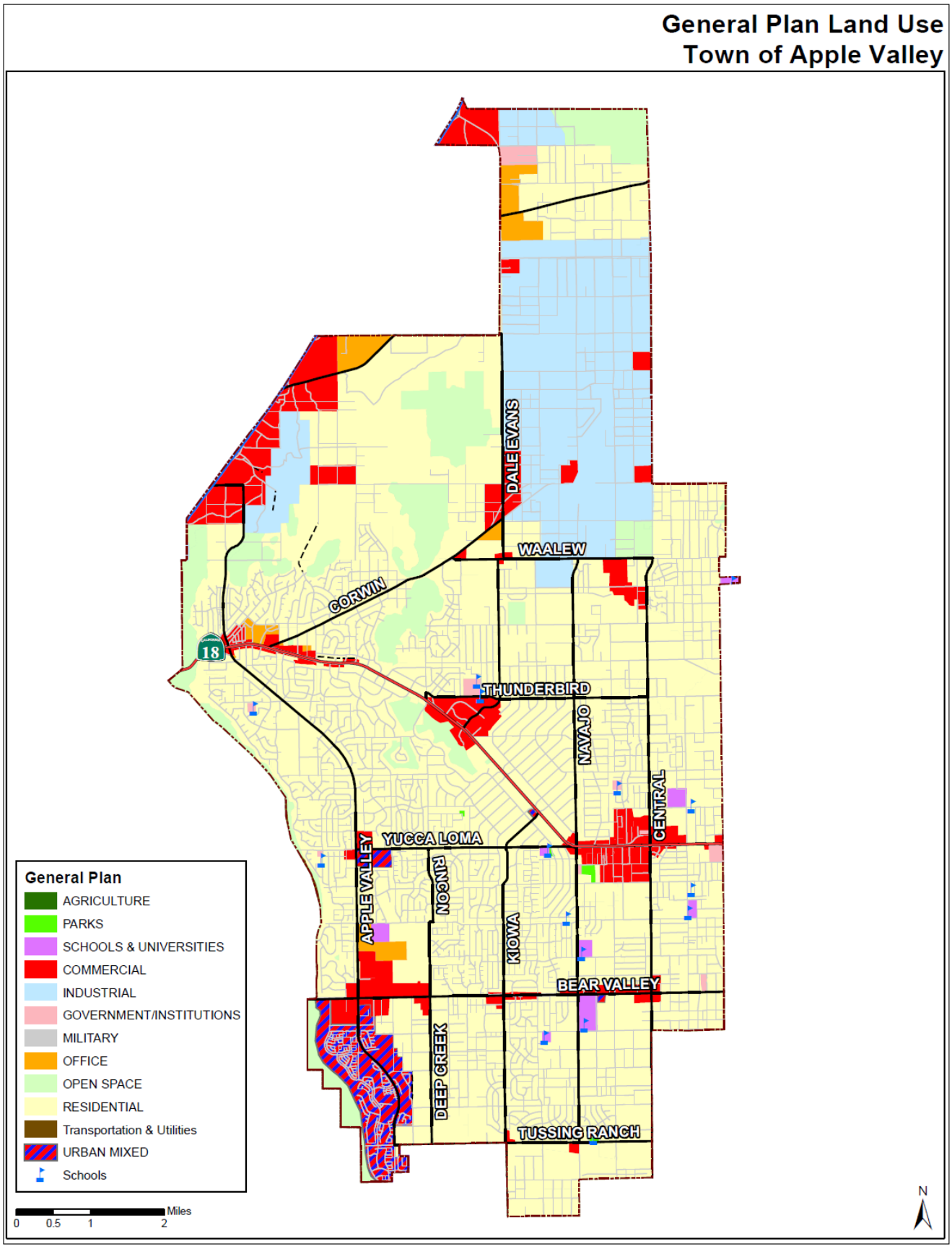
The Town of Apple Valley is located in the heart of the Victor Valley in the County of San Bernardino. As one of the municipalities comprising the "High Desert," Apple Valley is located 95 miles northeast of the Los Angeles metropolitan area, 140 miles north of San Diego, and 185 miles south of Las Vegas. The Town has 78 square miles in its incorporated boundaries, and a sphere of influence encompassing 200 square miles. Clean air, the backbone to a robust non-motorized network, and open spaces permits Apple Valley to be an opportune area to reach destinations by means other than the automobile.

Land Use

The map on page ___ shows the current and future land use patterns in the Town of Apple Valley. The land use types in Apple Valley are all related to a single, over-arching concept: that Apple Valley's quality of life is tied to its rural character, and that this character is to be preserved and protected for the long term health of the community. In Apple Valley "rural" means space — unscarred mountains and vistas of desert valleys, neighborhoods of large lots where keeping horses is allowed, an extensive multi-use trail system, and landscaping consistent with the desert environment.

Existing Conditions:

Three types of bicycle lanes exist within the Town of Apple Valley. Existing bicycle lanes (Class II facilities) are used to promote greater connectivity and access throughout the community, and encourage non-motorized modes of travel. Bicycles lanes in Town are also designed to connect to regional bikeways (Class I facilities). Currently, 10.8 miles of Class I, and 22.2 miles of Class II facilities are part of the Town's existing circulation system.


General Plan Land Use
Town of Apple Valley
DALE EVANS
WAALEW
CORWIN
18
THUNDERBIRD
NAVAJO
CENTRAL
YUCCA LOMA
APPLE VALLEY
FLICKON
KIOWA
BEAR VALLEY
DEEP CREEK
TUSSING RANCH
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
Miles
0 0.5 1 2
N

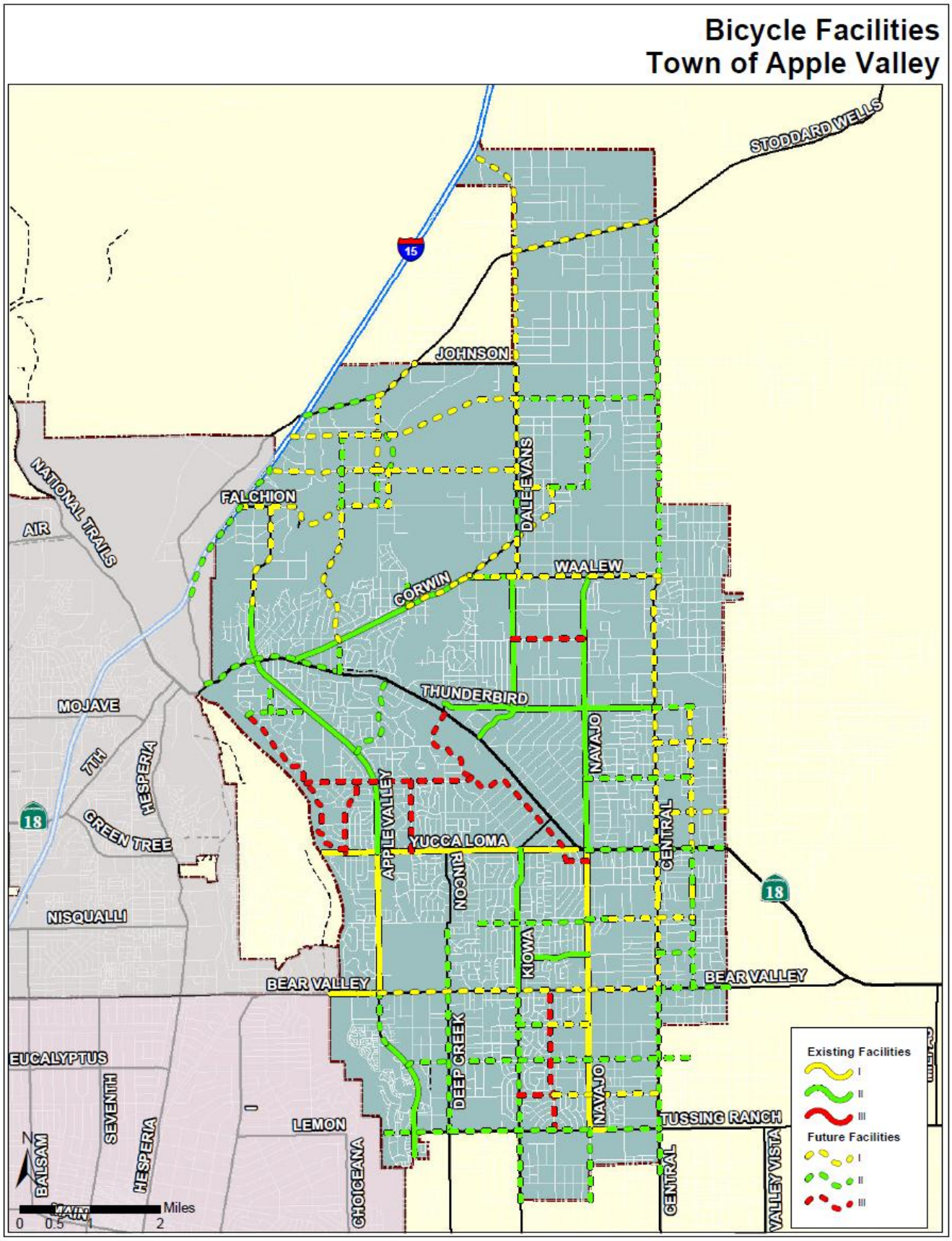

Bicycle Facilities
Town of Apple Valley
STODDARD WELLS
15
JOHNSON
NATIONAL TRAILS
AIR
FALCHION
DALE EVANS
WAALEW
CORWIN
THUNDERBIRD
MOJAVE
7TH
HESPERIA
18
GREEN TREE
NISQUALLI
APPLE VALLEY
YUCCA LOMA
RIDGON
NAVAJO
CENTRAL
KIOWA
BEAR VALLEY
DEEP CREEK
EUCALYPTUS
SEVENTH
HESPERIA
LEMON
CHOICEANA
BALSAM
TUSSING RANCH
VALLEY VISTA
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0
0.5
1
2

Table __:

Apple Valley Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Apple Valley Rd.	Jess Ranch Pkwy.	Verbena St.	II	1.77	$88,500
Apple Valley Rd.	Ohna Rd.	Yucca Loma Rd.	II	4.27	$213,500
Apple Valley Rd.	Yucca Loma Rd.	Bear Valley Rd.	I	2.01	$2,010,000
Bear Valley Rd.	Mojave River	Apple Valley Rd.	I	0.70	$700,000
Corwin Rd.	SR-18	Waalew Rd.	II	2.78	$139,000
Dale Evans Pkwy.	Otoe Rd.	SR-18	II	1.67	$83,500
Dale Evans Pkwy.	Waalew Rd.	Otoe Rd.	II	0.89	$44,500
Kiowa Ave.	Yucca Loma Rd.	Bear Valley Rd.	II	2.02	$101,000
Mesquite Rd.	Lucilla Rd.	Ottawa Rd.	I	0.21	$210,000
Navajo Rd.	SR-18	Tussing Ranch Rd.	I	4.00	$4,000,000
Navajo Rd.	Waalew Rd.	SR-18	II	3.90	$195,000
Pah-Ute Rd.	Kiowa Ave.	Navajo Rd.	II	1.01	$50,500
Thunderbird Rd.	Rancherias Rd.	Central Rd.	II	3.03	$151,500
Tussing Ranch Rd.	Navajo Rd.	Cochiti Rd.	I	0.29	$290,000
Waalew Rd.	Corwin Rd.	Dale Evans Pkwy.	II	0.82	$41,000
Yucca Loma Rd.	Mojave River	Algonquin Rd.	I	3.60	$3,600,000
			Total	**32.97**	**$11,918,000**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the Town of Apple Valley has constructed 3.9 miles of Class I and 22.2 miles of Class II facilities at a rate of 2.9 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Apple Valley. Based on planning level estimates, the value of the improvements implemented throughout the Town is $11,918,000

Proposed Improvements

Future improvements to the non-motorized network for the Town of Apple Valley will continue along the major transportation corridors throughout the Town. All proposed future improvements are included in Table __ below. The total of the future investment proposed in Apple Valley non-motorized infrastructure is estimated to be $48,940,200.

Table __:

Apple Valley Proposed Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Alembic St.	Norco St.	Falchion Rd.	II	0.50	$25,000
Alembic St.	Stoddard Wells Rd.	Norco St.	I	1.06	$1,060,000
Apple Valley Rd.	Bear Valley Rd.	Jess Ranch Pkwy.	II	0.74	$37,000
Apple Valley Rd.	Falchion Rd.	Ohna Rd.	I	1.49	$1,490,000
Bear Valley Rd.	Central Rd.	Joshua Rd.	II	1.00	$50,000
Bear Valley Rd.	Mojave River	Central Rd.	I	3.98	$3,980,000
Central Rd.	Bear Valley Rd.	Mojave St.	II	2.62	$131,000
Central Rd.	Stoddard Wells Rd.	Waalew Rd.	II	5.08	$254,000
Central Rd.	Waalew Rd.	Bear Valley Rd.	I	6.26	$6,260,000
Choco Rd.	Saugus Rd.	Norco St.	II	0.55	$27,500
Choco Rd.	Seneca Rd.	Yucca Loma Rd.	III	1.00	$15,000
Choco Rd.	Waalew Rd.	Corwin Rd.	II	0.42	$21,000
Corwin Rd.	Choco Rd.	Dakota Rd.	I	2.50	$2,500,000
Dakota Rd.	Fresno Rd.	Corwin Rd.	I	0.34	$340,000
Dale Evans Pkwy.	Corwin Rd.	Waalew Rd.	I	0.55	$550,000
Dale Evans Pkwy.	Fresno Rd.	Corwin Rd.	II	0.72	$36,000
Dale Evans Pkwy.	Outer I-15 S	Fresno Rd.	I	4.99	$4,990,000
Deep Creek Rd.	Sitting Bull Rd.	Tussing Ranch Rd.	II	3.00	$150,000
Del Oro Rd.	Apple Valley Rd.	Denison Rd.	II	4.09	$204,500
Esaws Ave.	Central Rd.	Joshua Rd.	I	1.00	$1,000,000
Falchion Rd.	Outer I-15 S	Norco St.	I	2.84	$2,840,000
Fresno Rd.	Dachshund Ave.	Navajo Rd.	II	0.50	$25,000
Fresno Rd.	Dale Evans Pkwy.	Dachshund Ave.	I	0.51	$510,000
Havasu Rd.	Seneca Rd.	Yucca Loma Rd.	III	1.09	$16,350
Highway 18.	W. Town Limit	Apple Valley Rd.	II	0.82	$41,000
Kiowa Rd.	Bear Valley Rd.	Ocotillo Wy.	II	2.99	$149,500
Lafayette St.	Dale Evans Pkwy.	Central Rd.	II	2.02	$101,000
Mandan Rd.	Hwy 18	Apple Valley Rd.	II	1.29	$64,500
Mesquite Rd.	Lucilla Rd.	Bear Valley Rd.	II	1.29	$64,500
Mesquite Rd.	Yucca Loma Rd.	Ottawa Rd.	II	0.50	$25,000
Mohawk Rd.	Bear Valley Rd.	Tussing Ranch Rd.	III	1.99	$29,850
Navajo Rd.	Lafayette St.	Fresno Rd.	II	1.27	$63,500
Navajo Rd.	Tussing Ranch Rd.	Ocotillo Wy.	II	1.00	$50,000
Nisqually Rd.	Maumee Rd.	Mesquite Rd.	I	1.17	$1,170,000
Nisqually Rd.	Navajo Rd.	Maumee Rd.	II	0.33	$16,500
Norco St.	Outer I-15 S	Dale Evans Pkwy.	I	3.55	$3,550,000
Ocotilla Rd.	Thunderbird Rd.	Yucca Loma Rd.	I	2.00	$2,000,000
Otoe Rd.	Dale Evans Pkwy.	Navajo Rd.	III	1.01	$15,150
Outer Hwy 18 N	Apple Valley Rd.	Tao Rd.	II	1.23	$61,500
Outer Hwy 18 S	Navajo Rd.	Joshua Rd.	II	2.00	$100,000
Outer I-15 S	Stoddard Wells Rd.	Norco St.	II	2.15	$107,500
Pah-Ute Rd.	Central Rd.	Mesquite Rd.	II	0.50	$25,000
Pauma St.	Saugus Rd.	Falchion Rd.	II	1.15	$57,500
Powhatan Rd.	Rancherias Rd.	Navajo Rd.	III	0.29	$4,350
Ramona Ave.	Navajo Rd.	Ocotilla Rd.	II	1.50	$75,000

Street/Path	From	To	Class	Mileage	Est. Cost
Rancherias Rd.	Hwy 18	Powhatan Rd.	III	3.34	$50,100
Riverside Dr.	Symeron Rd.	Havasu Rd.	III	2.68	$40,200
Sandia Rd.	Kiowa Rd.	Mohawk Rd.	II	0.45	$22,500
Sandia Rd.	Mohawk Rd.	Navajo Rd.	I	0.55	$550,000
Saugus Rd.	Outer I-15 S	Dale Evans Pkwy.	I	3.31	$3,310,000
Seneca Rd.	Riverside Dr.	Rancherias Rd.	III	2.38	$35,700
Sitting Bull Rd.	Skyline Ranch Dr.	Navajo Rd.	II	1.54	$77,000
Standing Rock Ave.	Central Rd.	Joshua Rd.	I	1.00	$1,000,000
Stoddard Wells Rd.	Alembic St.	Johnson Rd.	I	0.70	$700,000
Stoddard Wells Rd.	Dale Evans Pkwy.	Central Rd.	I	2.07	$2,070,000
Stoddard Wells Rd.	Outer I-15 S	Alembic St.	II	1.07	$53,500
Symeron Rd.	Riverside Dr.	Apple Valley Rd.	II	0.88	$44,000
Tao Rd.	Corwin Rd.	Outer Highway 18	II	0.43	$21,500
Tao Rd.	Falchion Rd.	Corwin Rd.	I	2.05	$2,050,000
Thunderbird Rd.	Central Rd.	Mesquite Rd.	II	0.63	$31,500
Tuscola Rd.	Apple Valley Rd.	Symeron Rd.	II	0.45	$22,500
Tussing Ranch Rd.	Cochiti Rd.	Central Rd.	II	0.71	$35,500
Tussing Ranch Rd.	Mojave River	Navajo Rd.	II	2.90	$145,000
Waalew Rd.	Corwin Rd.	Dale Evans Pkwy.	I	2.89	$2,890,000
Wren St.	Kiowa Rd.	Mohawk Rd.	III	0.50	$7,500
Wren St.	Mohawk Rd.	Central Rd.	I	1.50	$1,500,000
			Total	**108.91**	**$48,940,200**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	n/a	n/a

The Town of Apple Valley has not identified priority improvements.

Municipal Code

The Town of Apple Valley Municipal Code provides minimal requirements and direction for the incorporation of non-motorized facilities in new development. Nevertheless, to encourage the use and provide for the opportunity of non-motorized transportation, the Town's Off-Street Parking and Loading Regulations may require bicycle parking for such uses as fast-food restaurants, theaters, shopping centers, schools, etc. or as determined

by the Planning Division. A rack or other secure devices for the purposes of storing and protecting bicycles from theft is required.

General Plan Goals and Policies

The Town's General Plan Circulation Element identifies goals and policies that relates to facilitating the use of non-motorized transportation.

Policy 1.J
The Town shall implement a coordinated and connected bicycle lane network consistent with the Bicycle Lane Map in this Element.

Program 1.J.1
New development proposals shall be required to construct bicycle lanes consistent with this Element in conjunction with off-site improvements.

Program 1.J.2
The Town shall inventory bicycle lane deficiencies within the existing roadway system, and include improvements to make these improvements consistent with this Element in the Capital Improvement Program.

Policy 1.K
The Town shall provide for a comprehensive, interconnected recreational trails system suitable for bicycles, equestrians and/or pedestrians.

Program 1.K.1
The Town shall evaluate the practicality of utilizing flood control channels for multi-use trails, where flooding and safety issues can be accommodated, and negotiate inter-agency agreements for this purpose.

Program 1.K.2
New development proposals shall be required to construct recreational trails consistent with this Element in conjunction with off-site improvements.

The Town's General Plan Park and Recreation Element also identifies goals and policies that relate to facilitating the use of non-motorized transportation.

Goal 2

Expansion and further development of an integrated and comprehensive bikeway, walking paths and trails system that includes effective signage and supporting facilities to encourage use.

Policy 2.A

In addition to connecting homes to schools, the trails system will connect residential areas to commercial centers, workplaces and recreational facilities.

Policy 2.B

The Town's bicycle lane network shall be maintained and expanded to encourage greater use and to improve the safety of bicyclists on town streets.

Program 2.B.1

Installation of bikeways shall be included in the Capital Improvement Program and the Town shall inventory all existing major arterial streets for potential to accommodate Class I and II bikeways.

End of Trip Facilities

The Town of Apple Valley has bike racks dispersed throughout the Town, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Facility	Facility Type	Facility Location
n/a	n/a	n/a

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	45
Total # of Bicycle Fatalities from 2005-2009	2
Average # of Bicycle Collisions Per Year	9.0
Average Bicycle Collision Rate per 1000/year[1]	0.14
Index (relative to statewide average of __/1000[2]	

Notes:
1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The Town of Apple Valley holds an annual safety fair and bike rodeo, geared to K - 5th grade which promotes bicycle safety. Also, the promotion of bike use is part of the Town's Healthy Apple Valley program.

City of Barstow

Population

24,281

City Overview

Located in the high desert in central San Bernardino County, the City of Barstow is located at the intersection of Interstates 15 and 40 at the mid-point between Los Angeles and Las Vegas. Incorporated as a city in 1947, Barstow has grown from a small railroad town to become a center for rail transportation, the defense industry, mining, and tourist retail businesses. Barstow is home to BNSF Railway and two factory outlet complexes at Tanger Outlet and Barstow Outlet Stores. The City also serves as the gateway to the U.S. Army National Training Center (Ft. Irwin), the Marine Corps Logistical Base – Nebo Annex, and NASA's Goldstone Deep Space Network.

Land Use

The City of Barstow's provides for a number of land use types within its boundaries. Typically, most commercial/retail development is located adjacent to Interstates 15 and 40 and most of the industrial/warehouse development is located adjacent to the BNSF tracks, northwest of the railroad and south of State Route 58.

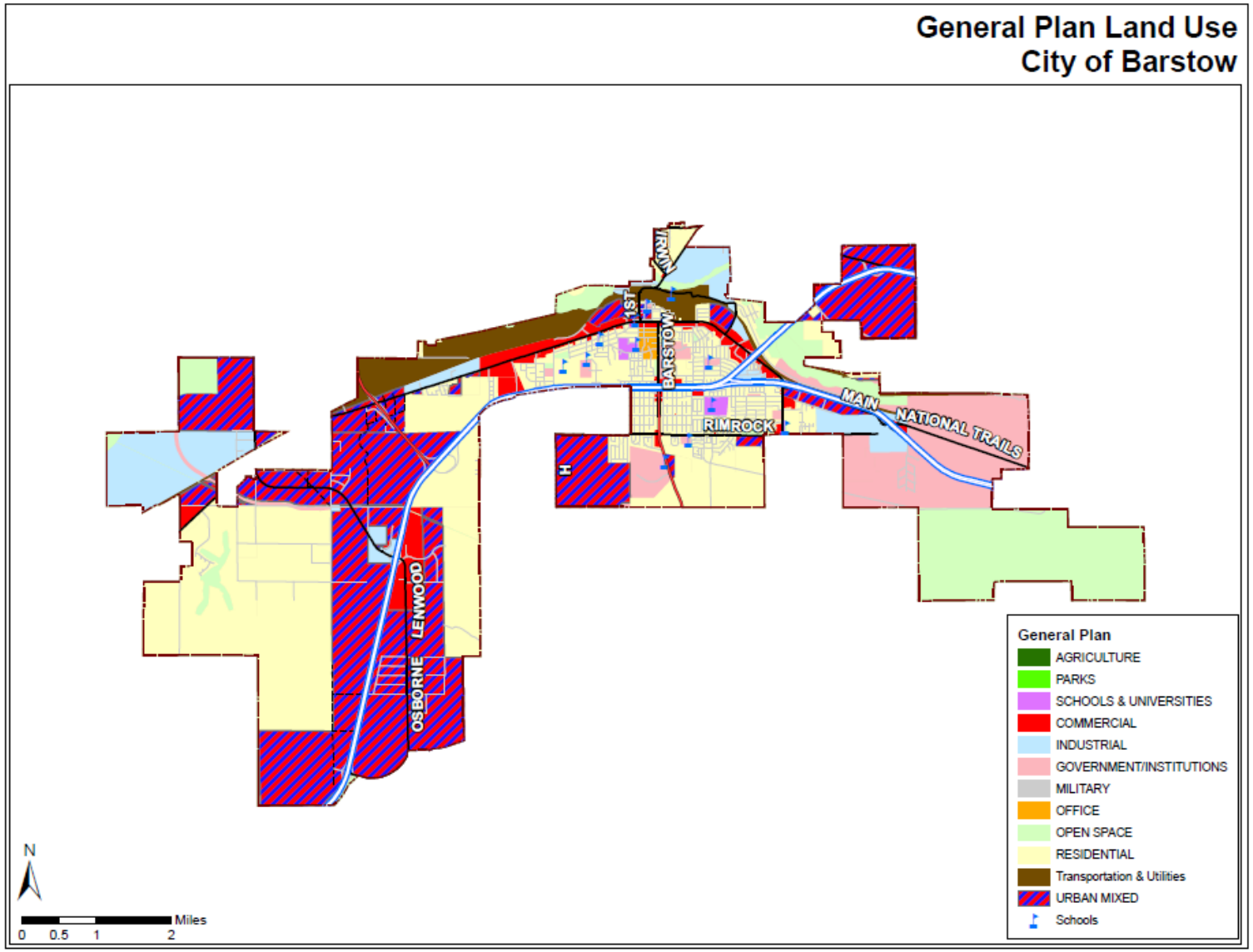
Vacant residential land is still plentiful and relatively inexpensive in Barstow. The development potential remains high in the City. There is an annexation at National Trails Highway and Lenwood Road that is expected to be approved by LAFCO in 2011 and additional annexations anticipated.

Existing Conditions:

There are currently no bicycle facilities in the City of Barstow.

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Barstow has not constructed any bicycle infrastructure improvements within the City.


General Plan Land Use
City of Barstow
1ST
BARSTOW
MAIN
NATIONAL TRAILS
RIMROCK
H
LENWOOD
OSBORNE
N
Miles
0 0.5 1 2
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

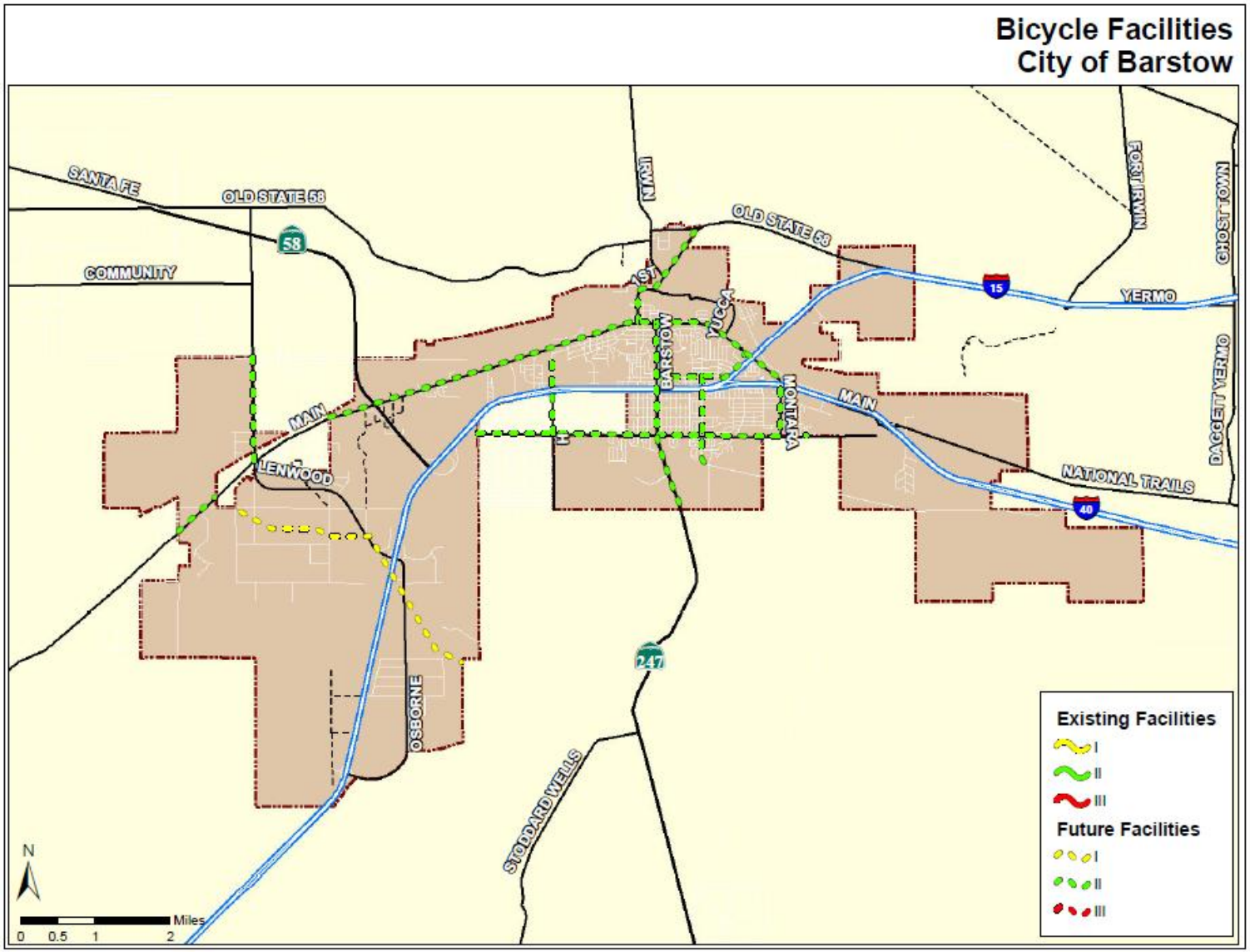

Bicycle Facilities
City of Barstow
SANTA FE
OLD STATE 58
58
COMMUNITY
MAIN
LENWOOD
OSBORNE
STODDARD WELLS
247
IRWIN
OLD STATE 58
1ST
BARSTOW
YUCCA
MONTANA
MAIN
15
FORT IRWIN
GHOST TOWN
YERMO
DAGGETT YERMO
NATIONAL TRAILS
40
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0 0.5 1 2

Table __:

Barstow Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Proposed Improvements

Future improvements to the non-motorized network for the City of Barstow will develop along the major transportation corridors throughout the City. All future improvements focus on further development of additional Class I and II facilities. A table of future improvements is included in Table __ below.

Table __:

Barstow Proposed Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
1st Ave	Irwin Rd	Main St	II	0.85	$42,500
Barstow Rd	Main St	SR-247	II	2.56	$128,000
Drainage Channel	Main St	Osborne Rd	I	3.95	$3,950,000
H St	Main St	Linda Vista Ave	II	1.07	$53,500
Irwin Rd	Old Hwy 58	1st Ave	II	0.79	$39,500
Lenwood Rd	Agate Rd	Main St	II	1.38	$69,000
Main St	W City Limit	I-40	II	6.62	$331,000
Main St	Delaney Rd	City Limit 0.68 m East	II	0.67	$33,500
Montara Rd	Main St	Rimrock Rd	II	0.62	$31,000
Muriel Dr	Virginia Wy	Guadalupe Dr	II	1.22	$61,000
Rimrock Rd	P St	Granada Hills Ave	II	4.39	$219,500
Roberta St	Virgina Wy	Main St	II	0.48	$24,000
Virginia Wy	Barstow Rd	Roberta St	II	0.90	$45,000
			Total	**25.50**	**$5,027,500**

The City of Barstow has identified Main Street, Barstow Road, H Street, Rimrock Road and Virginia Way as priority improvements. When all proposed projects are complete, the City will have constructed 25.50 miles of Class I and Class II providing internal connectivity to the residents of Barstow and establishing interregional connections to the County highway system.

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Barstow Rd.	Main St.	SR-247	II	2.56	$38,400
H St.	Main St.	Linda Vista Ave.	II	1.08	$54,000
Main St.	I-40	W. City Limit	II	6.62	$331,000
Rimrock Rd.	P St.	Granada Hills Ave.	II	4.39	$219,500
Virginia Wy.	Barstow Rd.	Roberta St.	II	0.90	$45,000
			Total	**15.55**	**$687,900**

Municipal Code

The City of Barstow has not adopted Municipal Code specific to non-motorized transportation or the placement of non-motorized transportation facilities.

End of Trip Facilities

The City of Barstow has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

The City of Barstow has the following multimodal facilities that interface with the non-motorized transportation system.

Table __:

Multimodal Connectivity

Facility	Facility Type	Facility Location
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:
Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	13
Total # of Bicycle Fatalities from 2005-2009	2
Average # of Bicycle Collisions Per Year	2.6
Average Bicycle Collision Rate per 1000/year[1]	0.11
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance

2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Barstow does not currently participate in any bicycle safety or education programs.

City of Big Bear Lake

Population

6,278

City Overview

The City of Big Bear Lake is a four-season, resort community located approximately 25 miles northeast of the City of San Bernardino in the San Bernardino Mountains. The City encompasses almost seven square miles and is approximately seven miles long and two miles wide. The City adjoins Big Bear Lake, which is the largest recreational lake in Southern California.

The Big Bear Valley was settled in the 1860s following the discovery of gold in the area. In 1884, Big Bear Lake was formed with the construction of a dam to provide irrigation waters to the San Bernardino Valley. By the 1920s, recreation became the most important economic factor in the valley. The local economy continues to be primarily based on tourism, with the summer and winter months being the most heavily visited seasons.

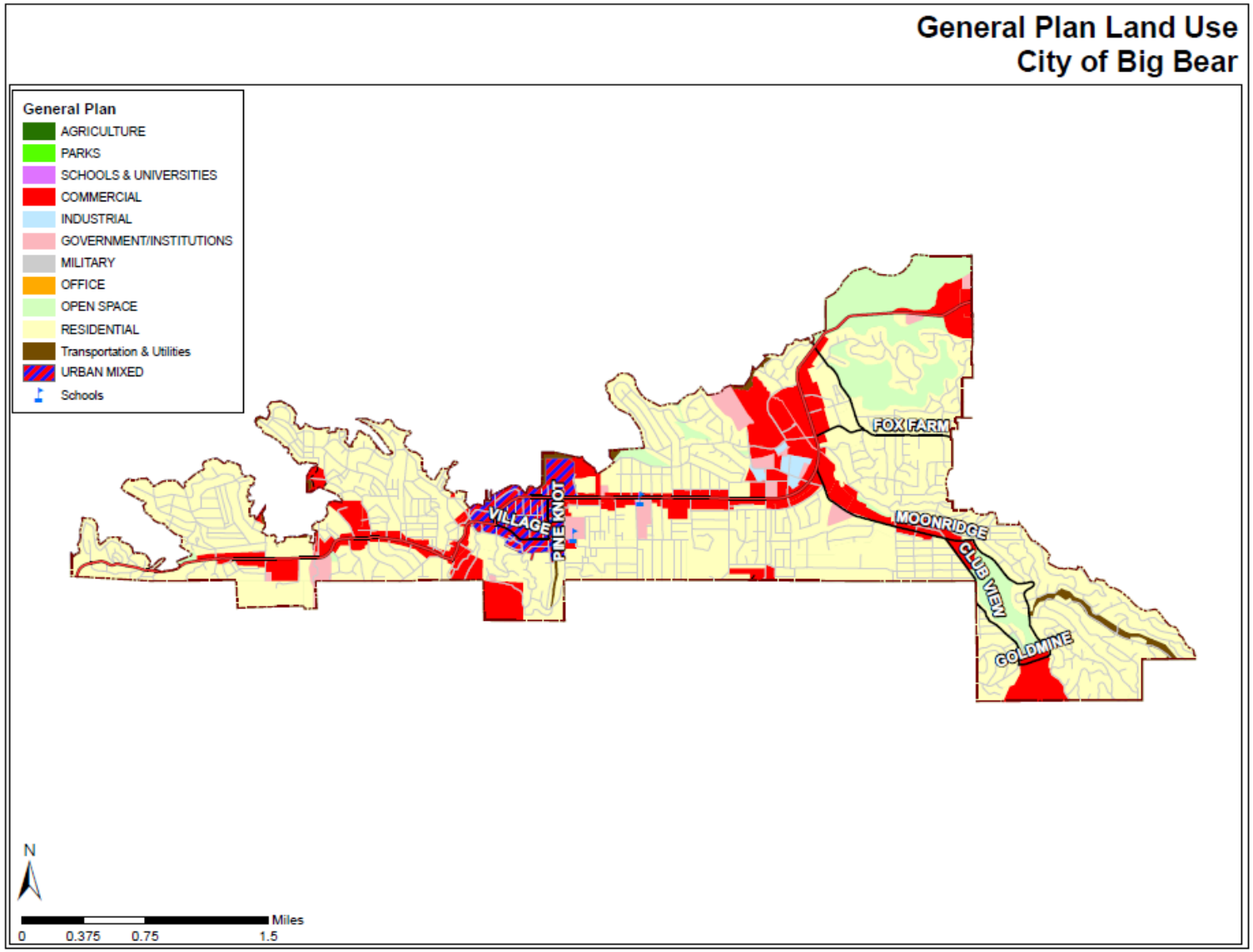
Land Use

The Big Bear Valley has historically been a weekend and second-home retreat for the residents of San Bernardino, Riverside and Los Angeles metropolitan areas. The City incorporated in 1980, in part as a response to these development pressures and the desire to have local control. The residents of the City express a strong desire to balance the benefits of growth with the preservation of the natural environment.

The land use of the City is comprised mostly of single-family residential, but also includes a number of areas designated for multi-family residential, commercial, service and industrial uses. The City's location adjacent to large areas of public lands, which are under the control of the U.S. Department of Forestry, provides for urban growth boundaries, preserving public open space and limiting urban sprawl.

Existing Conditions:

Bike Bear Lake's non-motorized bicycle network is comprised exclusively of Class III bike routes and it mostly recreational in nature. In total, 14.66 miles of bike route have been adopted by the City.


General Plan Land Use
City of Big Bear
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
FOX FARM
MOONRIDGE
CLUB VIEW
GOLDMINE
VILLAGE
BIG BEAR BLVD
N
Miles
0
0.375
0.75
1.5

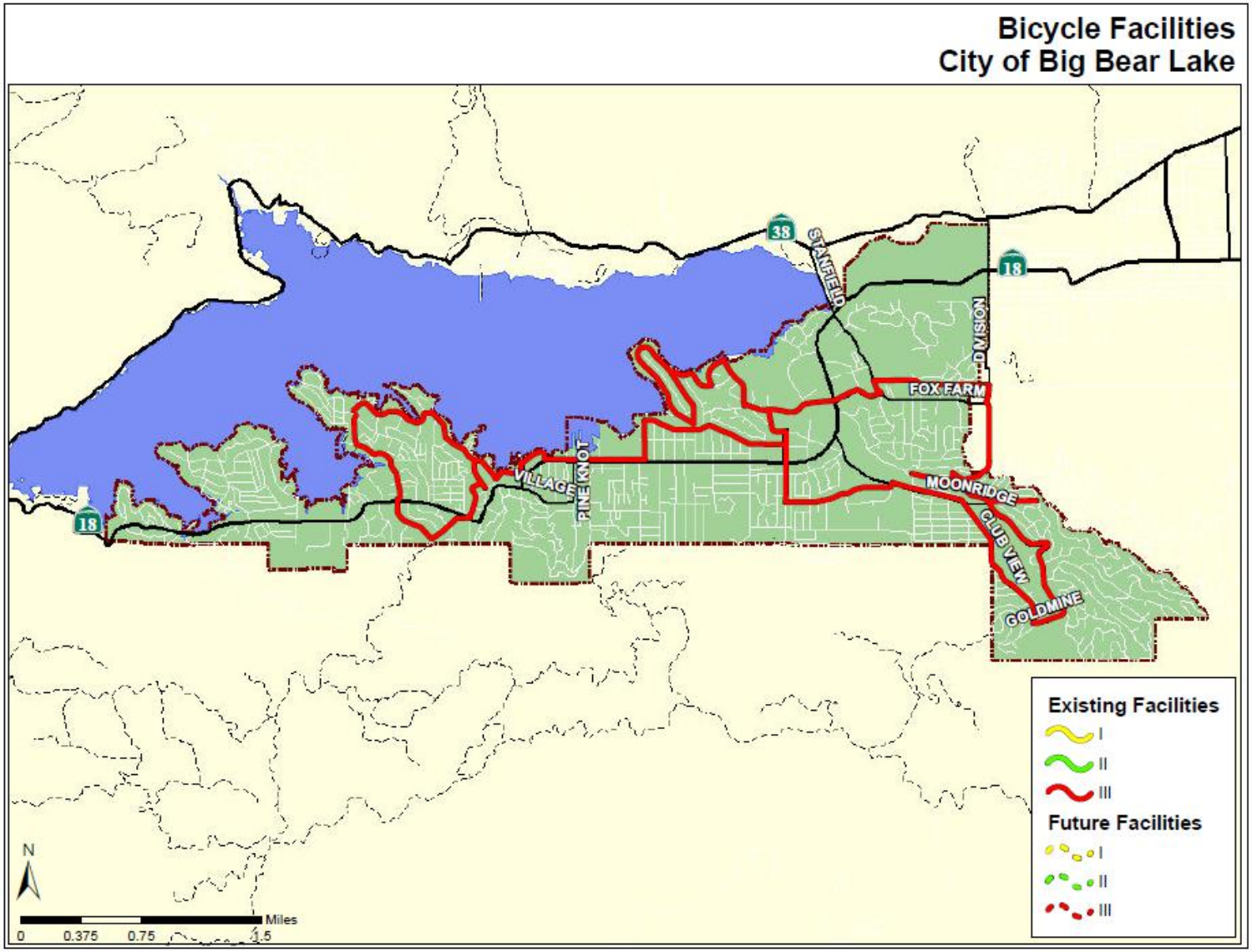

Bicycle Facilities
City of Big Bear Lake
38
18
18
STANFIELD
DIVISION
FOX FARM
VILLAGE
PINE KNOT
MOONRIDGE
CLUB VIEW
GOLDMINE
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0
0.375
0.75
1.5

Table __:

Bike Bear Lake Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Bayside Dr.	Stone Bridge Rd.	Marina Dr.	III	0.20	$3,000
Big Bear Blvd. (Hwy 18)	Pine Knot Rd.	Knight Ave.	III	0.45	$6,750
Club View Dr.	Moonridge Rd.	Goldmine Dr.	III	0.94	$14,100
Condor Dr.	Eureka Dr.	Oriole/Stone Bridge Rd.	III	0.09	$1,350
Cougar Rd.	Douglas St.	McAllister Rd.	III	0.30	$4,500
Douglas St.	Sonoma Dr.	Cougar Rd.	III	0.06	$900
Eagle Dr.	Eureka Dr.	North Eureka Dr.	III	0.35	$5,250
Edgemoor Rd.	Big Bear Blvd.	Mill Creek Rd.	III	0.36	$5,400
Edgemoor Rd.	Lakeview Dr.	Big Bear Blvd.	III	0.69	$10,350
Eureka Dr.	Park Ave.	Eagle Dr.	III	0.62	$9,300
Evergreen Dr.	Summit Blvd.	Moonridge Rd.	III	0.70	$10,500
Fox Farm Rd.	Big Bear Blvd.	Swan Dr/Garstin Rd.	III	0.43	$6,450
Fox Farm Rd.	Starvation Flats Rd.	Big Bear Blvd.	III	0.32	$4,800
Garstin Rd.	Swan Dr./Fox Farm Rd.	Summit Blvd.	III	0.21	$3,150
Goldmine Dr.	Club View Dr.	Moonridge Rd.	III	0.21	$3,150
Juniper Dr.	Division Dr.	Starvation Flats Rd.	III	0.73	$10,950
Knight Ave.	Big Bear Blvd.	Park Ave.	III	0.24	$3,600
Lakeview Dr.	Talmadge Rd.	Edgemoor Rd.	III	1.02	$15,300
Lakeview Dr.	Talmadge Rd.	Paine Rd.	III	0.37	$5,550
Lakeview Dr. (Hwy 18)	Simonds Dr.	Pine Knot Rd.	III	0.18	$2,700
Marina Dr.	Bayside Dr.	Swan Dr.	III	0.33	$4,950
McAllister Rd.	Cougar Rd.	Fox Farm Rd.	III	0.37	$5,550
McAllister Rd.	Fox Farm Rd.	Juniper Rd.	III	0.11	$1,650
Mill Creek Rd.	Edgemoor Rd.	Talmadge/Big Bear Blvd.	III	0.28	$4,200
Moonridge Rd.	Evergreen Dr.	Club View Dr.	III	0.44	$6,600
Moonridge Rd.	Goldmine Dr.	Sunset Dr.	III	0.99	$14,850
North Eureka Dr.	Eagle Dr.	Condor Dr.	III	0.27	$4,050
Paine Rd.	Lakeview Dr.	Simonds Dr.	III	0.07	$1,050
Park Ave.	Knight Ave.	Eureka Dr.	III	0.32	$4,800
Park Ave.	Summit Blvd.	Eureka Dr.	III	0.60	$9,000
Simonds Dr.	Paine Rd.	Lakeview Dr. (Hwy 18)	III	0.21	$3,150
Sonoma Dr.	Sunset Dr.	Cougar Ave.	III	0.82	$12,300
Starvation Flats Rd.	Juniper Dr.	Fox Farm Rd.	III	0.10	$1,500
Stone Bridge Rd.	Oriole Dr/Condor Dr.	Bayside Dr.	III	0.20	$3,000
Summit Blvd.	Big Bear Blvd.	Evergreen Dr.	III	0.26	$3,900
Summit Blvd.	Garstin Rd.	Big Bear Blvd.	III	0.18	$2,700
Swan Dr.	Marina Dr.	Garstin Rd./Fox Farm Rd	III	0.16	$2,400
Talmadge Rd.	Mill Creek/Big Bear Blvd.	Lakeview Dr.	III	0.48	$7,200
			Total	**14.66**	**$219,900**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Bike Bear Lake has constructed 14.66 miles of Class III at a rate of 1.69 miles per year.

Past Investment in Non-Motorized Infrastructure

The City of Big Bear Lake has made an investment in its non-motorized transportation infrastructure. The improvements included in Table __ above reflect an investment of $219,900 based on planning level estimates.

Proposed Improvements

The City of Big Bear Lake has not identified any proposed, future non-motorized improvements. However, the City in collaboration with bicycle advocacy groups and the County of San Bernardino are pursuing funds to prepare a Big Bear Valley regional non-motorized transportation plan. Should such a study be prepared and adopted by the jurisdictions, the plan will be incorporated into a future update or amendment to this plan.

Table __:

Bike Bear Lake Proposed Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

The municipal code for the City of Bike Bear Lake does not currently include the mandatory requirement for the inclusion of non-motorized serving infrastructure as part of the site design process.

End of Trip Facilities

The City of Bike Bear Lake has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

The City of Bike Bear Lake has the following multimodal facilities that interface with the non-motorized transportation system.

Table __:
Multimodal Connectivity

Facility	Facility Type	Facility Location
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	16
Total # of Bicycle Fatalities from 2005-2009	1
Average # of Bicycle Collisions Per Year	3.2
Average Bicycle Collision Rate per 1000/year[1]	0.52
Index (relative to statewide average of __/1000[2]	

Notes:
1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Bike Bear Lake does not currently participate in any bicycle safety or education programs.

City of Chino Hills

Population

78,971

City Overview

Incorporated in 1991, the City of Chino Hills is located in the western foothills of San Bernardino County. The City is comprised of 46 square miles with 3,000 acres of publicly owned open space, 40 parks and 39 miles of hiking trails.

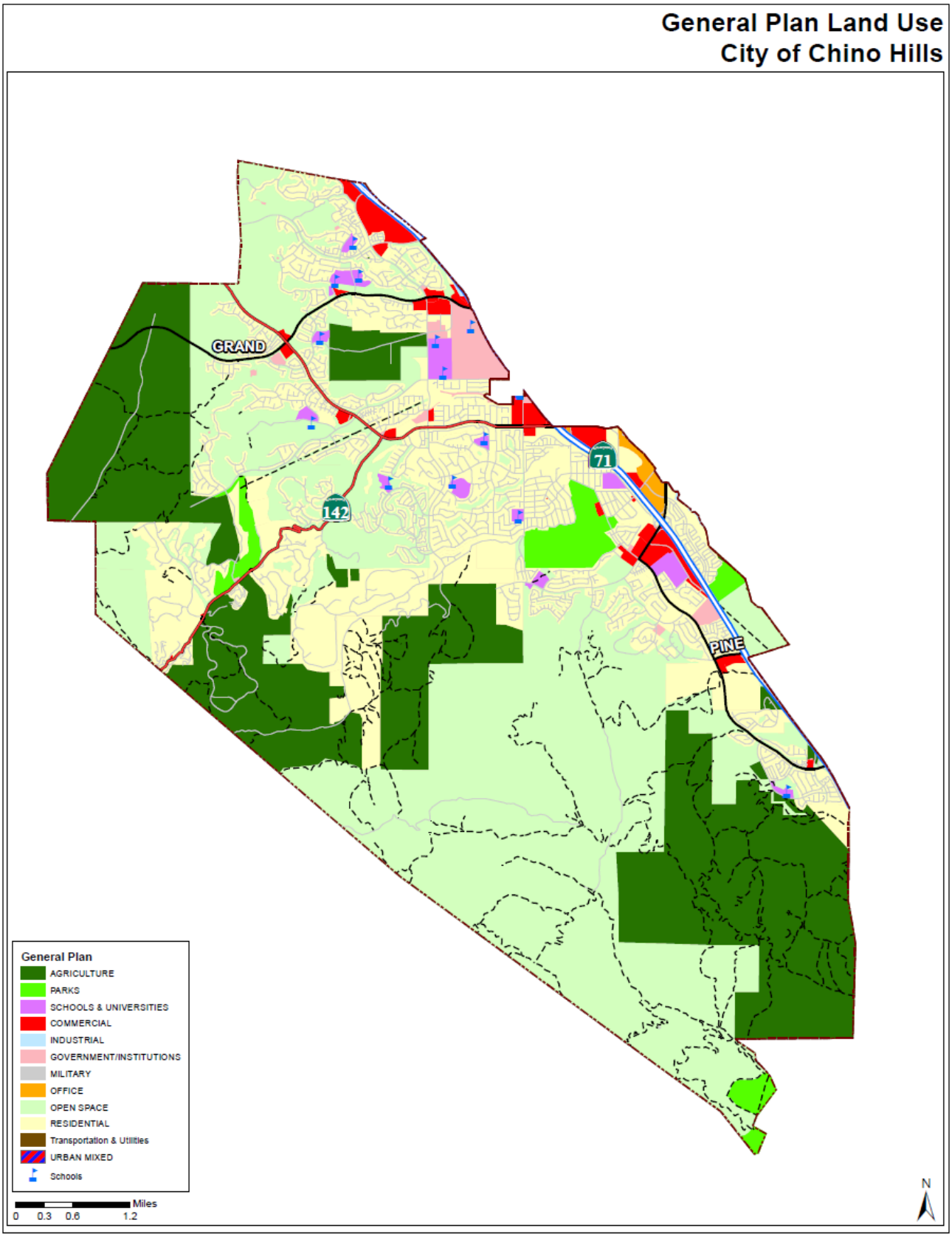
The City is also home to the Chino Hills State Park, which provides another 14,102 acres of open space that includes scenic vistas of the San Bernardino Valley and an additional 65 miles of trails that can be used for hiking, biking or horseback riding.

Land Use

The map on page ___ shows the General Plan land use map for the City of Chino Hills. The City is largely built out and seeing the maturation of its residential, commercial and industrial centers. Most of the City's open space and agricultural lands provide a buffer around its northern, western and southern city boundaries. The City also contains a significant amount of residential land use along the ridges and hillsides that transition into the San Bernardino Valley floor. Commercial and industrial land uses tend to be clustered around State Route 71, which is a major north-south transportation corridor on the eastern edge of the City.

Existing Conditions:

Chino Hill's non-motorized bicycle network has expanded significantly since the last update to the Non-Motorized Transportation Plan. The City's infrastructure now includes a 20.21 miles of Class II and III bike infrastructure, mostly on major transportation corridors throughout the City. The major corridors that now include Class II bike lanes include: Butterfield Ranch Road, Chino Hills Parkway and Peyton Drive. Also, portions of Fairfield Ranch Road, Soquel Canyon Road and Woodview Road contain Class II bike lanes. The bike lanes provide connectivity to commercial, residential, educational and recreational amenities throughout the city.


General Plan Land Use
City of Chino Hills
GRAND
142
71
PINE
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
Miles
0 0.3 0.6 1.2
N

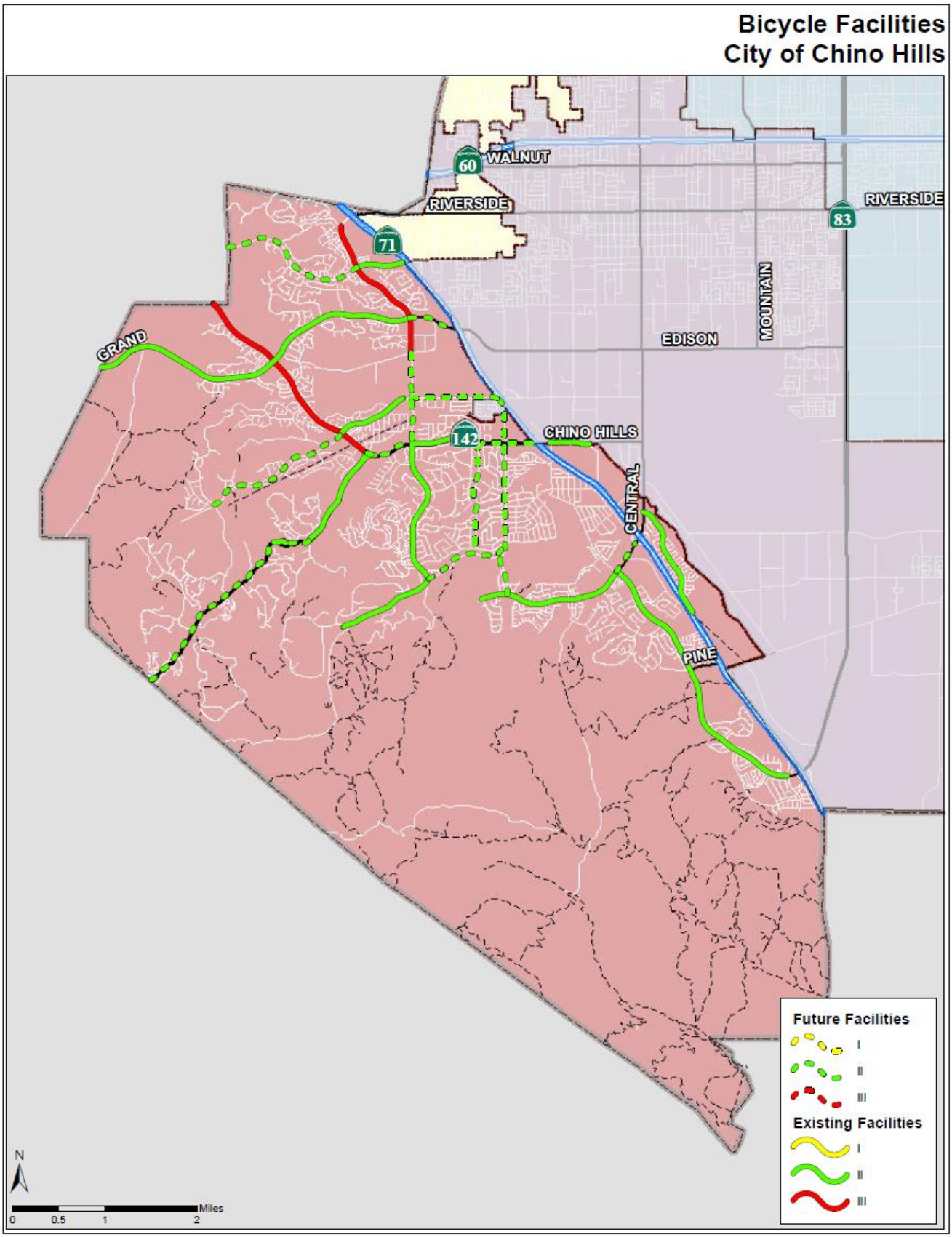

Bicycle Facilities
City of Chino Hills
WALNUT
60
RIVERSIDE
RIVERSIDE
83
71
MOUNTAIN
EDISON
GRAND
CHINO HILLS
142
CENTRAL
PINE
Future Facilities
I
II
III
Existing Facilities
I
II
III
N
Miles
0
0.5
1
2

Table __:

Chino Hills Existing Conditions

Street/Path	From	To	Class	Mileage	Cost
Butterfield Ranch Rd	Soquel Canyon Rd	Shady View Dr	II	3.07	$153,500
Carbon Cnyn Rd	Old Carbon Cnyn Rd	Chino Hills Pkwy	II	1.33	$66,500
Chino Ave	Peyton Dr	SR-71	II	0.51	$25,500
Chino Hills Pkwy	N City Limit	Carbon Canyon Rd	III	2.37	$35,550
Chino Hills Pkwy	Peyton Dr	Rolling Ridge Dr	II	0.72	$36,000
Chino Hills Pkwy (south side)	Ramona Ave	Monte Vista Ave	II	0.43	$21,500
Eucalyptus Ave	Chino Hills Pkwy	Chino Hills Community Park	II	0.78	$39,000
Fairfield Ranch Rd	Soquel Canyon Rd	Big League Dreams	II	1.27	$63,500
Grand Ave	W City Limit	Peyton Dr	II	3.76	$188,000
Peyton Dr	Rock Springs Dr	English Rd	III	1.67	$25,050
Peyton Dr (south side)	Woodview Rd.	Chino Hills Pkwy	II	1.61	$80,500
Soquel Canyon Pkwy	Butterfield Ranch Rd	Golden Terrace Ln	II	1.61	$80,500
Woodview Dr	Pipeline Ave	Vellano Club Dr	II	1.08	$54,000
			Total	**20.21**	**$869,100**

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Chino Hills. Based on planning level estimates, the value of the improvements implemented throughout the City is $869,100.

Proposed Improvements

Future improvements to the non-motorized network for the City of Chino Hills will continue along the major transportation corridors throughout the City. All future improvements focus on further development of additional Class II facilities. A table of future improvements is included in Table __ below.

In conjunction with the widening of Peyton Drive the City intends to construct Class II bike lanes from English Drive to Chino Hills Parkway.

While the state routes within the City Limits of Chino Hills are included as potential future projects, at this time it is unlikely that the City will directly initiate those projects.

Table __:

Chino Hills Proposed Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Carbon Cnyn Rd	E City Limit	Old Carbon Cnyn Rd	II	2.69	$134,500
Chino Ave	W. City Limits	Peyton Ave	II	1.63	$81,500
Chino Hills Pkwy	Carbon Canyon Rd	Peyton Ave	II	0.52	$26,000
Chino Hills Pkwy	Rolling Ridge Dr	SR-71	II	0.59	$29,500
Eucalyptus Ave	Rancho Hills Dr	Chino Hills Pkwy	II	1.66	$83,000
Eucalyptus Ave	Peyton Ave	Pipeline Ave	II	0.95	$47,500
Grand Ave	Peyton Ave	SR-71	II	0.50	$25,000
Peyton Dr	Eucalyptus Ave	English Rd.	II	0.98	$49,000
Pipeline Ave	SR-71	Soquel Canyon Rd	II	2.15	$107,500
Rolling Ridge Dr	Chino Hills Pkwy	Woodview Rd	II	1.15	$57,500
Soquel Canyon Pkwy	Butterfield Ranch Rd	SR-71	II	0.36	$18,000
Woodview Rd	Peyton Ave	Pipeline Ave	II	0.96	$48,000
			Total	**14.14**	**$707,000**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Cost
Peyton Dr.	English Rd.	Chino Hills Pkwy	II	0.70	$35,000
			Total	**0.70**	**$35,000**

Municipal Code

Chino Hills Municipal Code Section 16.34.060 (E) - Number of parking spaces required - provides the following requirements related to bicycle parking spaces:

Bicycle Parking. Parking spaces for bicycles shall be provided as required by Table 65-2. For any use for which bicycle parking is required, a minimum of four bicycle spaces shall be provided.

End of Trip Facilities

The City of Chino Hills has bike racks dispersed throughout the City, typically at retail centers and multi-unit housing complexes.

Multimodal Connectivity

The City of Chino Hills has the following multimodal facilities that interface with the non-motorized transportation system.

Facility	Facility Type	Facility Location
St. Paul the Apostle Church	Ride Share Lot	14085 Peyton Dr.
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	26
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	5.2
Average Bicycle Collision Rate per 1000/year[1]	0.07
Index (relative to statewide average of __/1000[2]	

Notes:
1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Chino Hills does not participate in safety or education programs specific to non-motorized transportation or the placement of non-motorized transportation facilities.

City of Chino

Population

84,742

City Overview

The City of Chino is comprised of approximately 29.5 square miles of area and is bounded by the SR-71 to the West, the City of Montclair to the north, the City of Chino Hills to the east and the County of Riverside to the south. The City is located 35 miles from downtown Los Angeles, 30 miles from downtown San Bernardino and 30 miles to the City of Irvine. The City of Chino is at the center of the Los Angeles Basin.

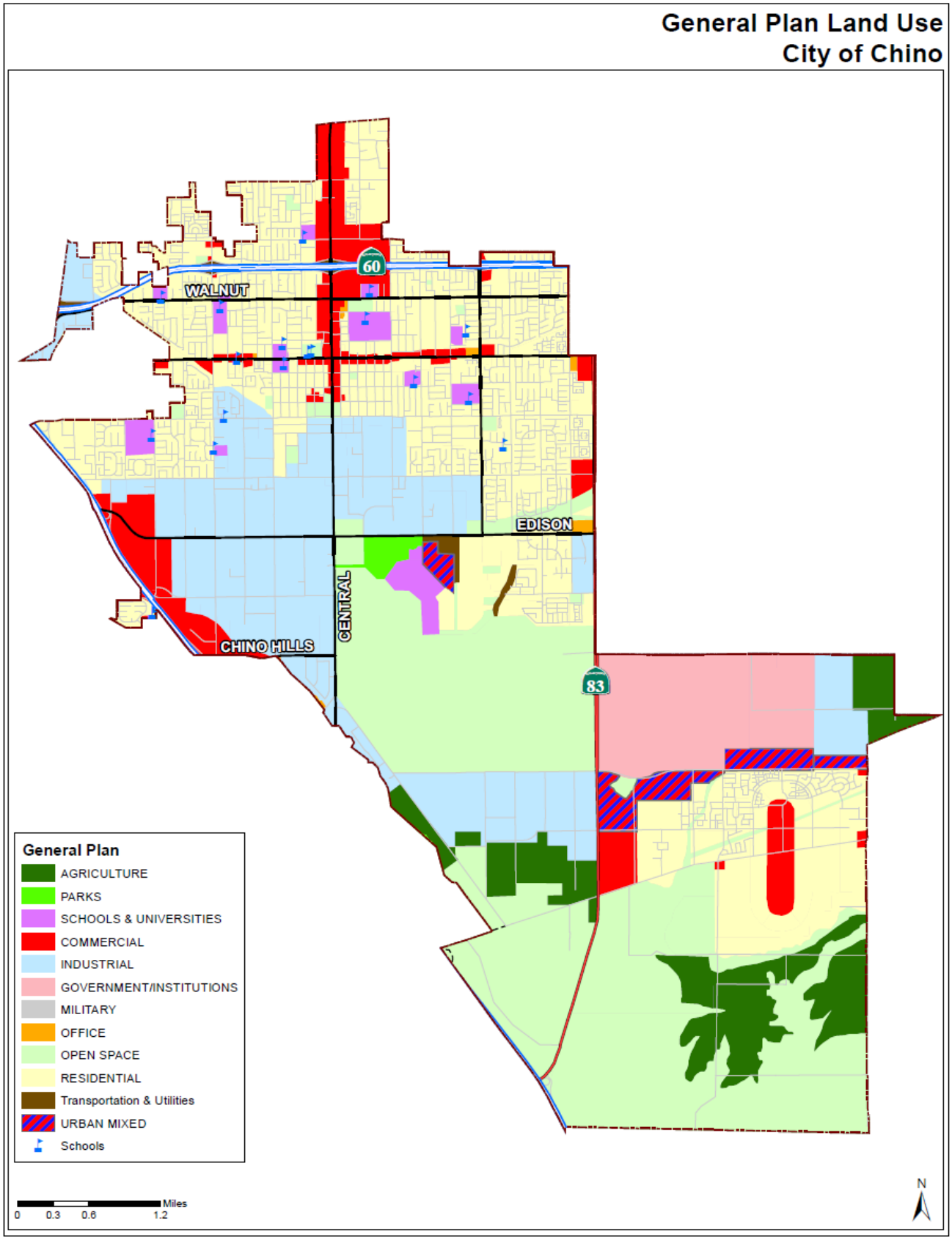
Chino began as an agricultural community around a railroad depot in 1887. The City maintained its agricultural focus well into the 1940s, expanding its focus to include dairy production. In the 1980s, the City shifted toward industrial, warehouse, and distribution land uses with those land uses clustered around the SR-71 and SR-60 freeways. The dairy farms in the south area of the City are in the process of transition into residential and mixed use developments.

Land Use

The map on page ___ shows the current and future land use patterns in the City of Chino. Industrial and warehouse uses are most common in the southern portions of the City and take advantage of the City's location along major trucking routes and near rail lines and the Ontario Airport. The City's primary commercial areas are located along major transportation routes, including SR-71, SR-83 (Euclid Avenue), Grand/Edison Avenues, Central Avenue, Riverside Drive, and Philadelphia Street. As the City has developed these additional land uses, it has significantly reduced the land area devoted to agricultural production, although there are still some scattered agricultural uses. Future growth in the City will primarily occur around major transportation corridors with with healthy transportation options, a small-town feel, and the ability to provide for residents' daily needs.

Existing Conditions:

Chino's non-motorized bicycle network is one of the more robust in San Bernardino County. The City contains one traditional Class I bikeway on Edison Ave. adjacent to Ruben Ayala Park and it includes several segments of Class I style cycle tracks along portions of several streets in the Preserve and College Park sections of the City. In total, the City of Chino has constructed 3.02 miles of Class I, 21.87 miles of Class II and 2.6 miles of Class III facilities.


General Plan Land Use
City of Chino
WALNUT
60
EDISON
CENTRAL
CHINO HILLS
83
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
Miles
0 0.3 0.6 1.2
N

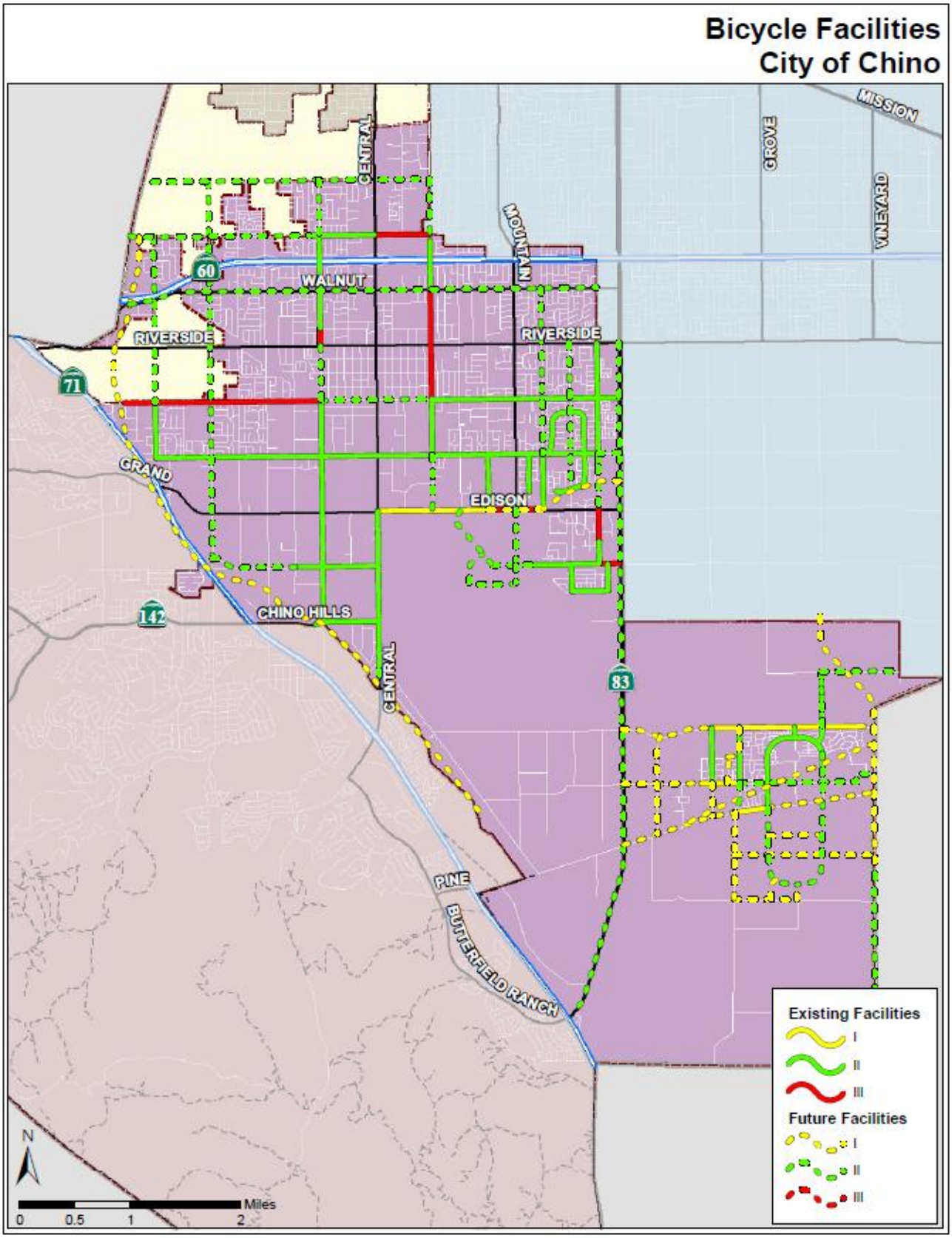

Bicycle Facilities
City of Chino
MISSION
GROVE
VINEYARD
CENTRAL
MOUNTAIN
60
WALNUT
RIVERSIDE
RIVERSIDE
71
GRAND
EDISON
142
CHINO HILLS
CENTRAL
83
PINE
BUTTERFIELD RANCH
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0
0.5
1
2

Table __:

Chino Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Alvardo St	S North Ave	Treadwell Ave	II	0.19	$9,500
Amsterdam Ave	Schaefer Ave	Dalton St	II	0.34	$17,000
Avila Ave	S North Ave	Schaefer Ave	II	0.37	$18,500
Avila Ave	Schaefer Ave	Edam St	II	0.32	$16,000
Benson Ave	Walnut Ave	Chino Ave	III	0.99	$14,850
Benson Ave	Chino Ave	Shaefer Ave	II	0.50	$25,000
Benson Ave	Monticello St	Walnut Ave	II	0.44	$22,000
Bickmore Ave	Moonflower Ave	Mill Creek Ave	I	0.35	$350,000
Central Ave	Edison Ave	El Prado Rd	II	1.44	$72,000
Chino Ave	Benson Ave	Euclid	II	1.70	$85,000
Chino Hills Pkwy	Monte Vista Ave	Central Ave	II	0.57	$28,500
Clemson St	Purdue Ave	San Antonio Ave	II	0.32	$16,000
Cypress Ave	Schaefer Ave	Edison Ave	II	0.50	$25,000
East End Ave	Chino Ave	Schaefer Ave	II	0.50	$25,000
East Preserve Loop	Main St	s/o Forest Park St	II	0.45	$22,500
Edam St	Avila Ave	Rancho Del Chino Ave	II	0.22	$11,000
Edison Ave	Central Ave	Magnolia Ave	I	1.00	$1,000,000
Edison Ave	Magnolia Ave	Cypress Ave	III	0.49	$7,350
Eucalyptus Ave	Central Ave	Yorba Ave	II	0.74	$37,000
Eucalyptus Ave	Euclid Ave	Fern Ave	III	0.18	$2,700
Eucalyptus Ave	Fern Ave	Cypress St	II	0.61	$30,500
Fern Ave	Riverside Dr	Schaefer Ave	II	1.00	$50,000
Fern Ave	Schaefer Ave	Hickory St	II	0.12	$6,000
Fern Ave	Edison Ave	n/o Persimmon St	III	0.29	$4,350
Fern Ave	n/o Persimmon St	Eucalyptus Ave	II	0.20	$10,000
Flight Ave	East Preserve Loop	Kimball Ave	II	0.66	$33,000
Kimball Ave	Rincon Meadow Rd	w/o Hellman Ave	I	1.37	$1,370,000
Magnolia Ave	Schaefer Ave	Edison Ave	II	0.50	$25,000
Main St	Kimball Ave	East Preserve Loop	II	0.09	$4,500
Mill Creek Ave	Kimball Ave	Bickmore Ave	II	0.50	$25,000
Monte Vista Ave	Chino Ave	Chino Hills Pkwy	II	2.00	$100,000
Monte Vista Ave	Philadelphia St	Lincoln Ave	II	0.84	$42,000
Monte Vista Ave	Lincoln Ave	Riverside Dr	III	0.15	$2,250
Philadelphia St	Carlisle Ave	Central Ave	II	0.59	$29,500
Philadelphia St	Central Ave	Benson Ave	III	0.50	$7,500
Pine St	Mill Creek Ave	West Preserve Loop	I	0.30	$300,000
Purdue Ave	Eucalyptus Ave	Clemson St	II	0.24	$12,000
Rancho Del Chino Ave	Treadwell Ave	Schaefer Ave	II	0.38	$19,000
Rincon Meadows Ave	Kimball Ave	Bickmore Ave	II	0.50	$25,000
San Antonio Ave	Clemson St	Eucalyptus Ave	II	0.24	$12,000
Schaefer Ave	East End Ave	Fern Ave	II	4.00	$200,000
West Preserve Loop	Pine Ave	Main St	II	0.80	$40,000
			Total	**27.49**	**$4,152,500**

In addition, the City has also striped 21.87 miles of Class II bike lanes, mostly on major transportation corridors throughout the City. Large stretches of Class II facilities currently exist along sections of Benson Ave., Central Ave., Chino Ave., Monte Vista Ave., and Schaefer Ave. The bike lanes establish a backbone grid network, connecting commercial, residential, educational and recreational amenities throughout the city. Finally, 2.6 miles of designated Class III bike routes also exist in small sections throughout the City. The Class III facilities tend to be in areas with limited right-of-way on the existing roadways or where gaps in the Class II network exist.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Chino. Based on planning level estimates, the value of the improvements implemented throughout the City is $4,152,500.

Proposed Improvements

Future improvements to the non-motorized network for the City of Chino will continue along the major transportation corridors throughout the City and connecting new residential neighborhoods to the non-motorized system. Most of the future improvements in the City are Class II facilities, but there are several regional Class I facilities proposed as well. A new north/south Class I facilities is proposed along the western drainage channel, which generally parallels the SR-71 freeway along the western boundary of the City. The City of Chino does not currently propose to add additional Class III facilities at this time. A table of future improvements is included in Table __ below.

The City of Chino has not identified any priority improvements as part of this plan.

Table __:

Chino Proposed Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Benson Ave	Francis Ave	Philadelphia St	II	0.50	$25,000
Benson Ave	Schaefer Ave	Edison Ave	II	0.50	$25,000
Bickmore Ave	Euclid Ave	Moonflower Ave	I	0.70	$700,000
Bickmore Ave	W Preserve Loop	Hellman Ave	II	1.03	$51,500
Central Ave	El Prado Rd.	Drainage Channel	II	0.14	$7,000
Chino Ave	Preciado Ave	Benson Ave	II	1.86	$93,000
Chino Ave	Unincorporated Boundary w/ of Pipeline	Pipeline	II	0.06	$3,000
Chino Corona Rd (E/W)	Chino Corona Rd (N/S)	Main St	I	0.56	$560,000
Chino Corona Rd (N/S)	Pine Ave	Chino Corona Rd (E/W)	I	0.78	$780,000

Street/Path	From	To	Class	Mileage	Est. Cost
Cypress Ave	Walnut Ave	Schaefer Ave	II	1.49	$74,500
Drainage Channel	Philadelphia St	Flower St	I	6.70	$6,700,000
East End Ave	Philadelphia St	Chino Ave	II	0.54	$27,000
East Preserve Loop	Main St (southside of loop)	Forest Park St	II	1.34	$67,000
Edison Ave	Magnolia Ave	Cypress Ave	I	0.49	$490,000
Edison Ave	Cypress Ave (along SCE Easement)	Euclid Ave	I	0.75	$750,000
Eucalyptus Ave	Pipeline Ave	Yorba Ave	II	0.77	$38,500
Eucalyptus Ave	Cypress Channel	Oaks Ave	II	0.35	$17,500
Euclid Ave	Riverside Dr	SR-71	II	6.08	$304,000
Fern Ave	Hickory St	Edison Ave	II	0.37	$18,500
Flight Ave	Kimball Ave	Remington Ave	II	0.49	$24,500
Francis Ave	Benson Ave	West City Limit	II	0.61	$30,500
Future Street (south end of loop)	West Preserve Loop	Chino Corona Rd (E/W)	I	0.19	$190,000
Future Street south of Eucalyptus Ave	Eucalyptus Ave	Mountain Ave	II	0.75	$37,500
Hellman Ave	Merrill Ave	Hereford Dr	I	2.50	$2,500,000
Hellman Ave	Hereford Dr	McCarty Rd	II	1.24	$62,000
Kimball Ave	Euclid Ave	Rincon Meadows Ave	I	0.82	$820,000
Legacy Park St	Chino Corona Rd (N/S)	Hellman Ave	I	1.26	$1,260,000
Main St	E/W Preserve Loop	Chino Corona Rd (E/W)	I	0.13	$130,000
Market St	West Preserve Loop	East Preserve Loop	I	0.48	$480,000
Mayhew Ave	Kimball Ave	Pine Ave	I	0.89	$890,000
Mill Creek Ave	Bickmore Ave	Pine Ave	II	0.28	$14,000
Mill Creek Ave	Kimball Ave	Spring Hill St	I	0.25	$250,000
Monte Vista Ave	Philadelphia St	Francis Ave	II	0.50	$25,000
Monte Vista Ave	Riverside Dr	Chino Ave	II	0.50	$25,000
Mountain Ave	Edison Ave	Eucalyptus Ave	II	0.50	$25,000
Mountan Ave	Eucalyptus Ave	(Future Street to west)	II	0.15	$7,500
Nature Trail	Spring Hill St	Bickmore Ave	I	0.24	$240,000
Oaks Ave	Eucalyptus Ave	Edison Ave	II	0.64	$32,000
Philadelphia St	Drainage Channel	W City Limit	II	0.29	$14,500
Pine Ave	Euclid Ave	Mill Creek Ave	I	1.05	$1,050,000
Pine St	West Preserve Loop	Hellman Ave	I	0.97	$970,000
Pipeline Ave	Francis Ave	Drainage Channel	II	3.51	$175,500
Remington Ave	Flight Ave.	Carpenter St	II	0.70	$35,000
Ricon Meadows Ave	Bickmore Ave	Pine Ave	I	0.29	$290,000
San Antonio Ave	Riverside Dr	Edam St	II	1.32	$66,000
SCE Easement Trail	Pine Ave	Hellman Ave	I	1.88	$1,880,000
Schaefer Ave	Fern Ave	Euclid Ave	II	0.19	$9,500
Spring Hill St	Mill Creek Ave	Nature Trail	I	0.10	$100,000
Walnut Ave	West City Limit	Fern Ave	II	4.23	$211,500
West Preserve Loop	Pine Ave	Main St (southside of loop)	II	0.86	$43,000
				52.82	**$22,576,500**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

End of Trip Facilities

The City of Chino has bike racks dispersed throughout the City, typically at retail centers and multi-unit housing complexes.

Multimodal Connectivity

The City of Chino has the following multimodal facilities that interface with the non-motorized transportation system.

Table __:

Multimodal Connectivity

Facility	Facility Type	Facility Location
Chino Ave PNR Lot	Ride Share Lot	3321 Chino Ave
Chino Transit Center	Multi-Modal Facility	6th St and Chino Ave
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	102
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	20.4
Average Bicycle Collision Rate per 1000/year[1]	0.26
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Chino does not currently participate in any bicycle safety or education programs.

City of Colton

Population

51,816

City Overview

The City of Colton is one of San Bernardino County's truly historic cities. Incorporated in 1887, the community began growing in 1883 when the Southern Pacific Railroad linked Southern California to the rest of the nation by rail. The City remains strategically located at the crossroads of the Inland Empire. Geographically the City encompasses an area of approximately 18 square miles and is located at the junction of the I-10 and I-215 freeways.

Colton is a small town with a downtown corridor of authentic character as well as historic homes, parks, unique shops and restaurants, alongside the beautifully restored Andrew Carnegie Library Building.

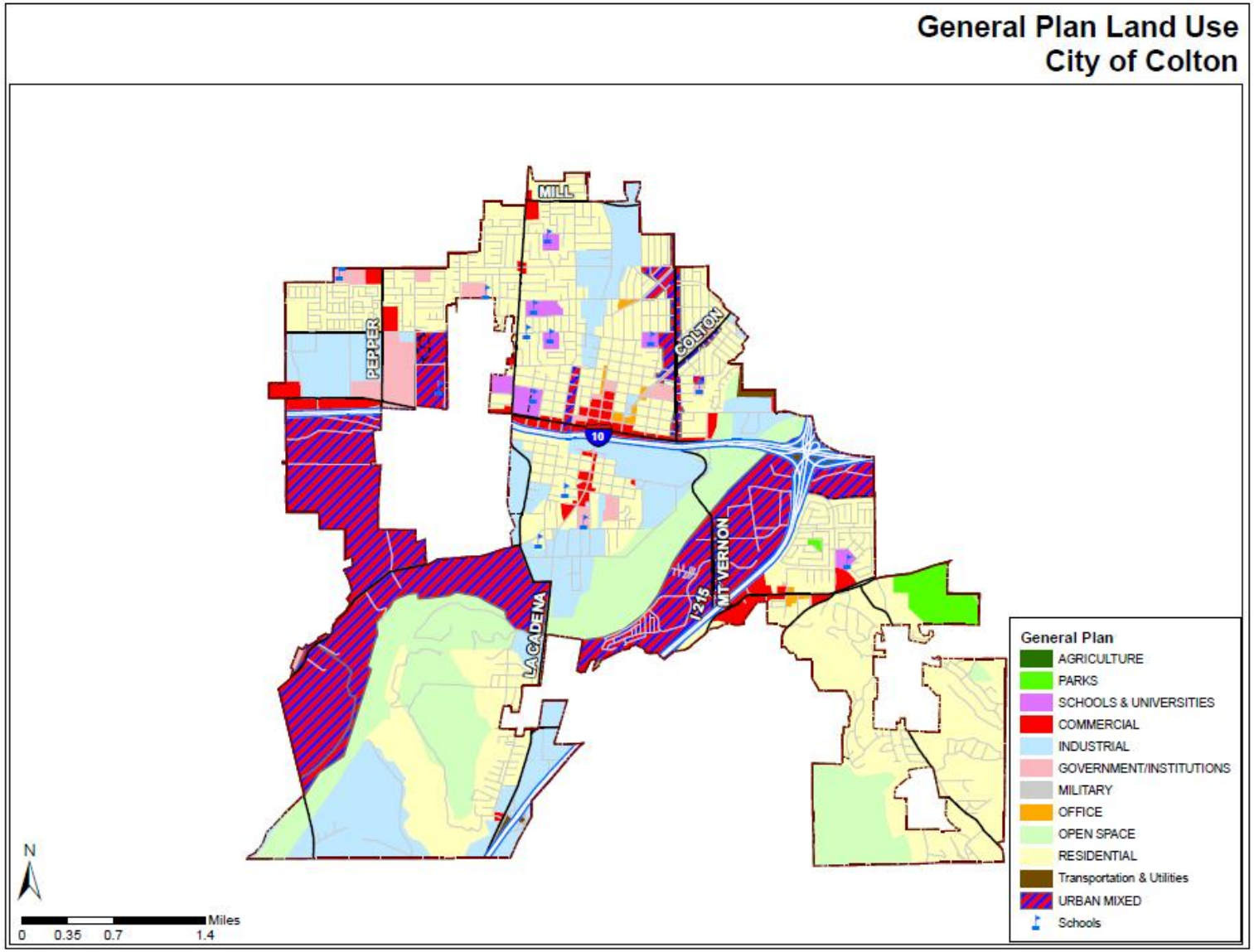
Land Use

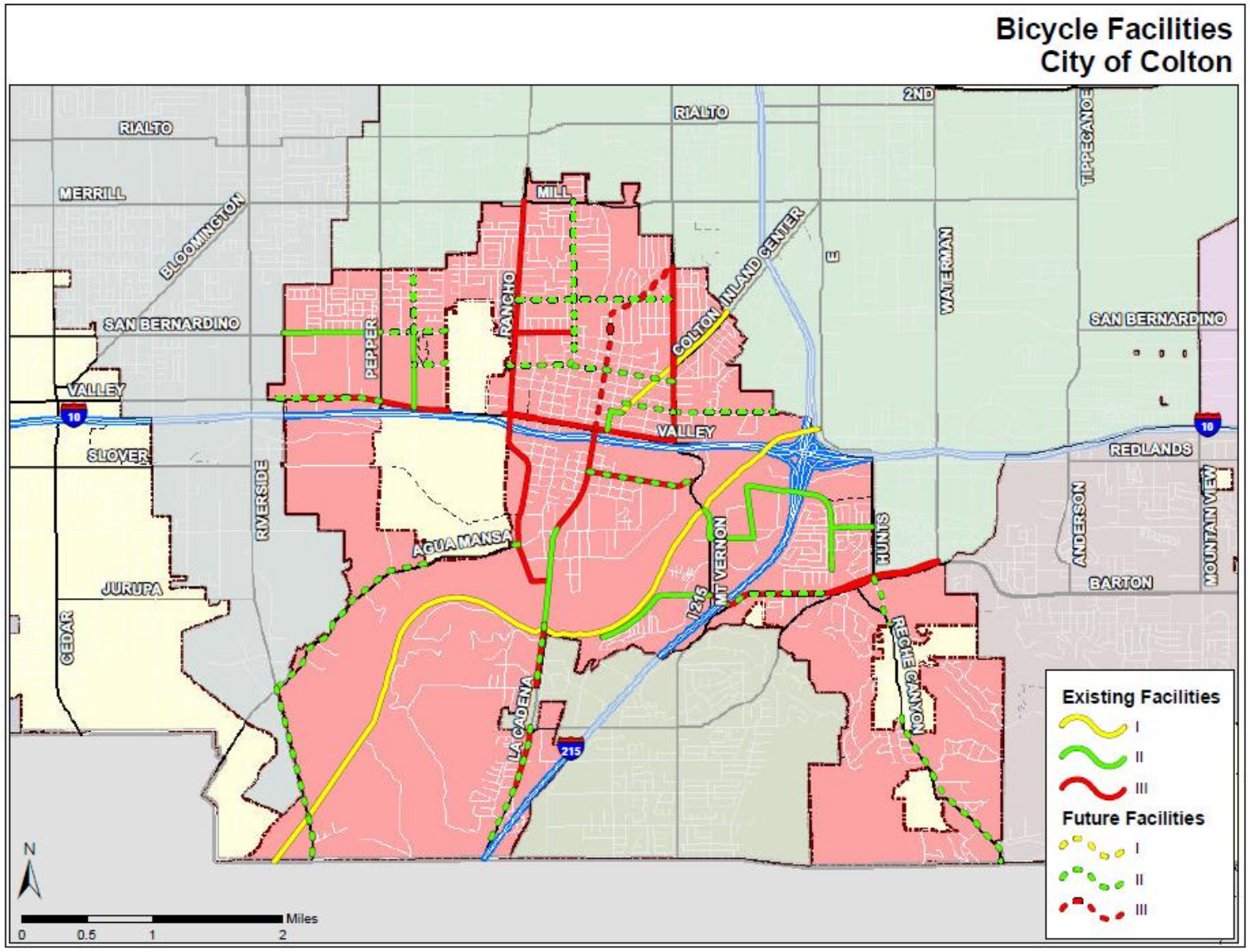
The map on page ___ shows the land use coverage in the City of Colton's General Plan. Due to the age of the City, most of the City's housing stock is older by comparison to the rest of the Inland Empire, with 37.6% of the City's housing stock built before 1970. The City is also nearing build-out of its residential neighborhoods, and as such, will remain largely suburban in form.

The City's General Plan offers a variety of commercial, retail, mixed use development opportunities. Most of the remaining developable land is located in Agua Mansa, the Pellisier Ranch Area (south Colton) and the Colton Superblock. The overall vision for the Superblock is a transit oriented development which includes, a vibrant, walkable, compact, mixed-use district focused around premium transit along San Bernardino Avenue, Pepper Avenue, and Valley Boulevard with potential transit stations on San Bernardino and Pepper Avenues. A more pedestrian-friendly environment served by multimodal transportation would reduce traffic congestion prevalent in the surrounding areas.

Existing Conditions:

Colton's non-motorized bicycle network has expanded significantly since the last update to the Non-Motorized Transportation Plan. The City now enjoys two Class I bikeways, for a total of 7.27 miles. The first bikeway is along the Santa Ana River throughout the entire length of the river in the City. The second bikeway is located along the former Pacific Electric right-of-way on Colton Ave.


General Plan Land Use
City of Colton
MILL
PEPPER
COLTON
10
MT VERNON
I-215
LA CADENA
N
Miles
0 0.35 0.7 1.4
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools


Bicycle Facilities
City of Colton
RIALTO
MERRILL
BLOOMINGTON
SAN BERNARDINO
VALLEY
SLOVER
JURUPA
CEDAR
RIVERSIDE
PEPPER
RANCHO
MILL
COLTON
INLAND CENTER
E
WATERMAN
2ND
TIPPECANOE
SAN BERNARDINO
REDLANDS
ANDERSON
MOUNTAIN VIEW
BARTON
AGUA MANSA
MT VERNON
I215
HUNTS
LA CADENA
REDLANDS
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0
0.5
1
2

The City has also striped 5.85 miles of striped Class II bike lanes, mostly on major transportation corridors throughout the City. The bike lanes provide connectivity to commercial, residential, educational and recreational amenities throughout the city. Finally, the Class I and II facilities are augmented by Class III bike routes throughout the City. The City has 13.71 miles of designated bike routes in the City.

Table __:

Colton Existing Conditions

Street/Path	From	To	Class	Mileage	Cost
9th St.	G St.	Valley Blvd.	II	0.15	$7,500
Barton Rd.	Washington St.	Waterman Ave.	III	1.70	$25,500
Colton Ave Bike Path	N City Limits	G St.	I	1.12	$1,120,000
Cooley Dr.	Mt Vernon Ave.	Old Ranch Rd.	II	1.90	$95,000
Cooley Ln.	Cooley Dr.	Hunts Ln.	II	0.32	$16,000
G St.	9th St.	Colton Ave.	II	0.09	$4,500
La Cadena Dr.	Barton Rd.	La Loma Ave.	III	0.41	$6,150
La Cadena Dr.	BNSF RR	Santa Ana River Bridge	II	0.78	$39,000
La Cadena Dr.	Santa Ana River Bridge	Litton Ave.	III	0.43	$6,450
La Cadena Dr.	Valley Blvd.	BNSF RR	III	0.84	$12,600
M St.	La Cadena Dr.	Mt Vernon Ave.	III	0.81	$12,150
Meridian Ave.	Valley Blvd.	San Bernardino Ave.	II	0.58	$29,000
Mt Vernon Ave.	Santa Ana River Bridge	Cooley Dr.	II	0.34	$17,000
Mt Vernon Ave.	Valley Blvd.	La Cadena Dr.	III	2.24	$33,600
Olive St.	w/o Rancho Ave.	Pennsylvania Ave.	III	0.49	$7,350
Rancho Ave.	Mill St.	Valley Blvd.	III	1.64	$24,600
Rancho Ave.	Valley Blvd.	La Cadena Dr.	III	1.50	$22,500
San Bernardino Ave.	Pepper Ave.	Sycamore Ave.	II	0.75	$37,500
Santa Ana River Trail	Riverside County Line	I-10	I	6.15	$6,150,000
Valley Blvd.	w/o Rancho Ave.	Mt Vernon Ave.	III	1.53	$22,950
Valley Blvd.	Wildrose Ave.	e/o Hermosa Ave.	III	1.14	$17,100
Washington St.	Mt Vernon Ave.	Barton Rd.	III	0.98	$14,700
Washington St.	West terminus	Mt Vernon Ave.	II	0.94	$47,000
			Total	**26.83**	**$7,768,150**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Colton has constructed 7.3 miles of Class I, 5.8 miles of Class II and 13.7 miles of Class III facilities at a rate of 2.98 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Colton. Based on planning level estimates, the value of the improvements implemented throughout the City is $7,768,150.

Proposed Improvements

Future improvements to the non-motorized network for the City of Colton will continue along the major transportation corridors throughout the City. All future improvements focus on further development of additional Class II facilities. A table of future improvements is included in Table __ below. When complete, the City will have constructed an additional 16.68 miles of Class II and III, providing a significant upgrade to the density and connectivity of the bicycle network in the City.

The City of Colton has identified the bike route segment listed on Table ___ as its top 5 priority. These priority segments have connectivity to Santa Ana River Regional Trail.

Table __:

Colton Future Improvements

Street/Path	From	To	Class	Mileage	Cost
Agua Mansa Rd.	County Limit	Rancho Ave.	II	0.07	$3,500
Agua Mansa Rd.	Riverside Ave.	County Limit	II	1.55	$77,500
C St.	County Limit	Mt Vernon Ave.	II	1.27	$63,500
C St.	Meridian Ave.	County Limit	II	0.26	$13,000
F St.	10th St.	Mt Vernon Ave.	II	0.39	$19,500
Fairway St.	Mt Vernon Ave.	Auto Plaza Dr.	II	0.76	$38,000
La Cadena Dr.	Barton Rd.	I-215	II	0.98	$49,000
La Cadena Dr.	Mt Vernon Ave.	Valley Blvd.	III	1.83	$27,450
La Cadena Dr.	Santa Ana River	Litton Ave.	II	0.47	$23,500
Laurel St.	Rancho Ave.	Mt Vernon Ave.	II	1.19	$59,500
M St.	La Cadena Dr.	Mt Vernon Ave.	II	0.81	$40,500
Meridian Ave.	San Bernardino Ave.	Randall Ave.	II	0.50	$25,000
Olive St.	Meridian St.	La Cadena Ave.	II	0.25	$12,500
Pennsylvania Ave.	Mill St.	C St.	II	1.26	$63,000
Reche Canyon Trail	County Limit	Riverside County Line	II	1.38	$69,000
Reche Canyon Trail	Washington Dr.	County Limit	II	0.38	$19,000
Riverside Ave.	Agua Mansa Rd.	Santa Ana River Bridge	II	1.02	$51,000
Riverside Ave.	Santa Ana River Bridge	Riverside County Line	II	0.32	$16,000
San Bernardino Ave.	W. City Limit	Meridian St.	II	0.25	$12,500
Valley Blvd.	W. City Limit	Pepper Ave.	II	0.87	$43,500
Washington St.	I-215	Barton Rd.	II	0.87	$43,500
			Total	**16.68**	**$769,950**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Cost
La Cadena Dr.	Barton Rd.	I-215	II	0.98	$49,000
La Cadena Dr.	Mt Vernon Ave.	Valley Blvd.	III	1.83	$27,450
La Cadena Dr.	Santa Ana River	Litton Ave.	II	0.47	$23,500
Riverside Ave.	Riverside County Line	Santa Ana River	II	0.32	$16,000
Riverside Ave.	Agua Mansa Rd.	Santa Ana River Bridge	II	1.02	$51,000
			Total	**4.62**	**166,950**

Municipal Code

The municipal code for the City of Colton does not currently include the mandatory requirement for the inclusion of non-motorized serving infrastructure as part of the site design process.

End of Trip Facilities

The City of Colton has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

The City is upgrading an existing biketrail staging area at the southwest corner of La Cadena Drive and Santa Ana River. The improvements for this facility will provide paved parking, restrooms, picnic tables, shade structures, landscaping/irrigation and other amenities.

Multimodal Connectivity

The City of Colton does not have any multimodal facilities that interface with the non-motorized transportation system.

Collisions Involving Bicyclists

Table __:
Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	30
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	6.0
Average Bicycle Collision Rate per 1000/year[1]	0.12
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Colton does not currently participate in any bicycle safety or education programs.

City of Fontana

Population

190,356

City Overview

Fontana's history dates back to 1887, when the City's precursor, the townsite of Rosena was located in the City's present-day downtown. A.B. Miller, an early agricultural landowner who figures prominently in our City's founding, rededicated Rosena as Fontana in 1913. By the 1930s, the City was largely settled from Baseline to the Santa Fe Railway.

From the beginning, the development of Fontana radiated outward from the downtown. The establishment of the Kaiser Steel Mill changed the character of the community from rural to industrial in 1942. The population and intensity of development increased dramatically in the next decade, and consequently, the City incorporated as Fontana in 1952. The City is now home to 190,356 people in an incorporated area encompassing over 36 square miles, with another 16 square miles in its sphere of influence

Fontana's economy has continued to diversify, with steel production playing less of a role since the 1984 closure of Kaiser Steel, and the rise of the trucking and distribution industries. The City is now among the fastest growing communities in the Inland Empire, with residential and commercial development continuing to move northward, due in part to the supply of vacant land there, and the access provided to it by the newly constructed SR-210 freeway and I-15.

Land Use

In the early 1900s, Fontana was a diversified agricultural community, producing major commodities such as citrus, grain, grapes, poultry, and swine. In 1942, the area began to transition to a more industrial base with the founding of the Kaiser Steel Mill.

Today, Fontana is both a bedroom community, with a commuting population of workers, and, due to its suburban location near several major freeway and rail transportation corridors, is also a major Inland Empire hub of warehousing and distribution centers. These uses are located primarily in the City's southern half, adjacent to the I-10 corridor. There is also some concentration of these uses near Cherry Ave. and Baseline. Heavy industrial areas surround the former Kaiser Steel (now California Steel) within the City's sphere of influence, and along the I-10 corridor between Valley Blvd and Slover Ave.

A range of residential neighborhoods has developed in the City. The established single and multi-family residential neighborhoods and commercial core of Fontana is largely

contained between Baseline and Valley Boulevard. Newer residential development is occurring along the northern edge of the City west of the I-15 freeway, and radiating north and south of the SR 210 corridor. A large portion of Fontana, north of the SR 210 still remains to develop as a mix of planned communities and job centers. Nearly one-third of the acreage within the City and its sphere is vacant.

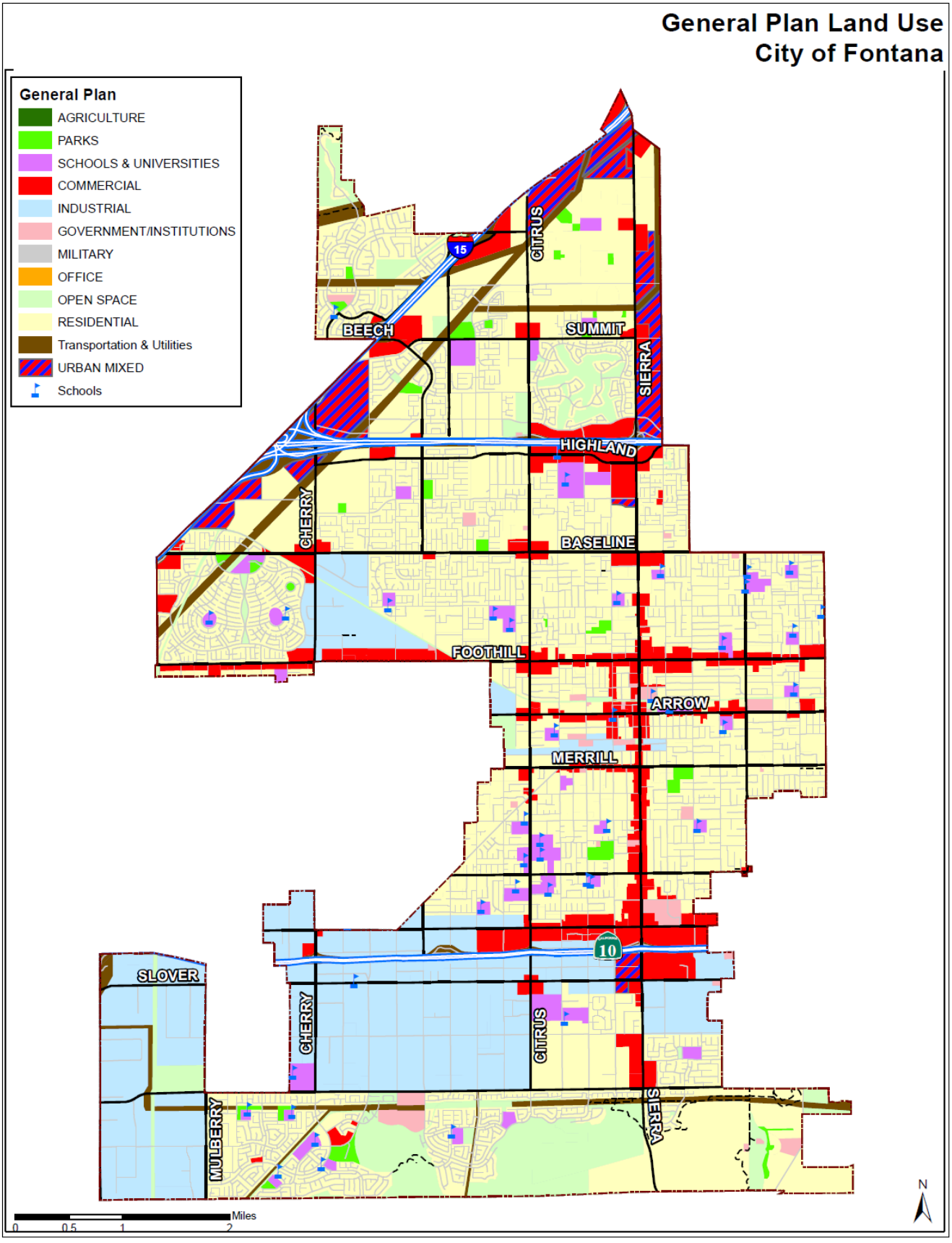
Existing Conditions:

Fontana's non-motorized bicycle network has expanded significantly since the last update to the Non-Motorized Transportation Plan. The City is finishing construction on the Pacific Electric Trail, which is scheduled to be complete by June 2011. Once complete, the Pacific Electric Trail will be one continuous Class I trail from Fontana to the Los Angeles County Line. With the completion of the Pacific Electric Trail, 8.86 miles of Class I bikeways will exist in Fontana.

The City has striped 27.64 miles of Class II bike lanes, mostly on major transportation corridors throughout the City. There also exists 4.85 miles of Class I facilities. The bike lanes provide connectivity to commercial, residential, educational and recreational amenities throughout the city.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Fontana. Based on planning level estimates, the value of the improvements implemented throughout the City is $6,232,000.


General Plan Land Use
City of Fontana
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
15
10
BEECH
CITRUS
SUMMIT
SIERRA
HIGHLAND
CHERRY
BASELINE
FOOTHILL
ARROW
MERRILL
SLOVER
MULBERRY
0
0.5
1
2
Miles
N

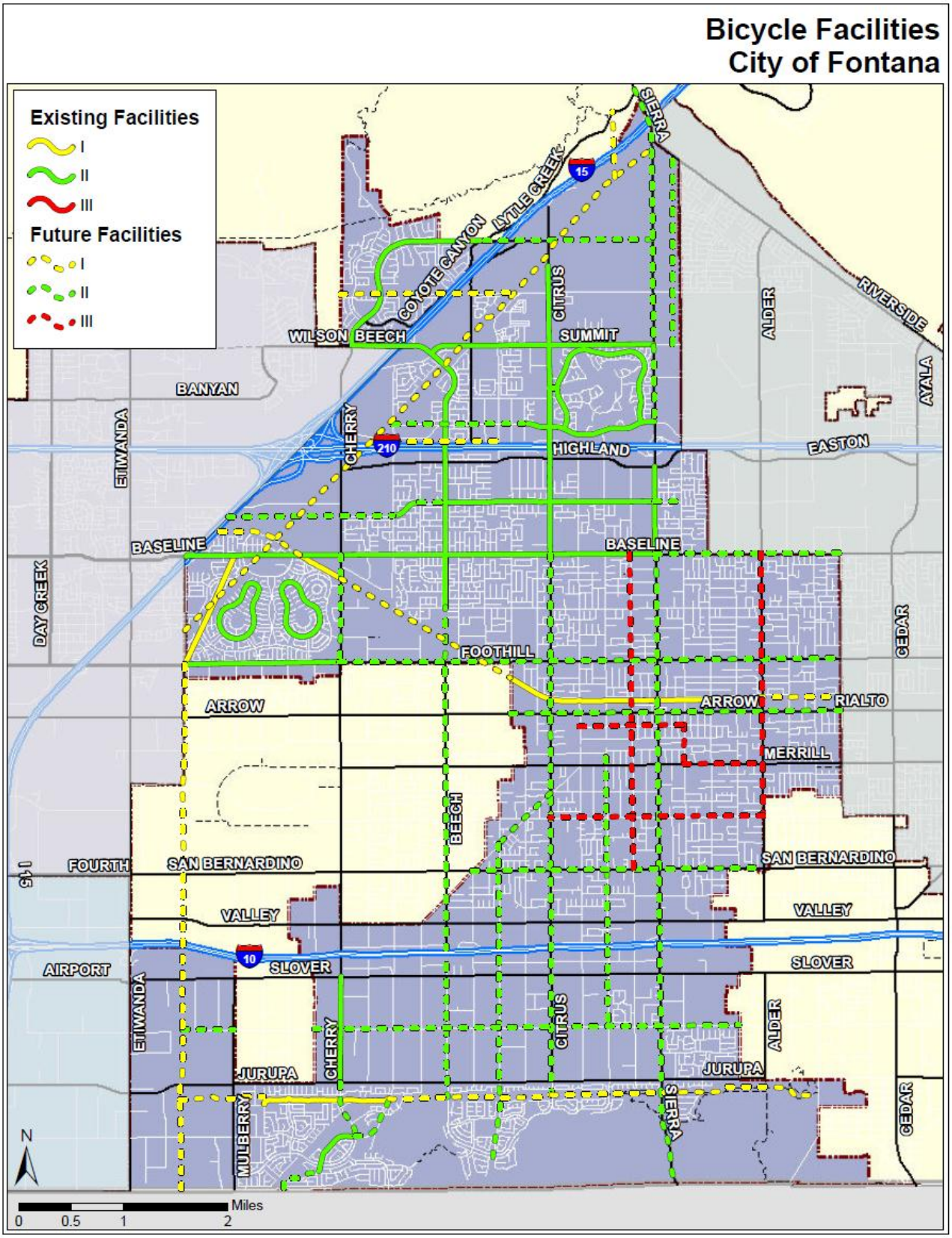

Bicycle Facilities
City of Fontana
Existing Facilities
I
II
III
Future Facilities
I
II
III
SIERRA
LYTLE CREEK
COYOTE CANYON
CITRUS
ALDER
RIVERSIDE
AYALA
WILSON
BEECH
SUMMIT
BANYAN
ETIWANDA
CHERRY
210
HIGHLAND
EASTON
BASELINE
BASELINE
DAY CREEK
FOOTHILL
CEDAR
ARROW
ARROW
RIALTO
MERRILL
BEECH
I-15
FOURTH
SAN BERNARDINO
SAN BERNARDINO
VALLEY
VALLEY
10
AIRPORT
SLOVER
SLOVER
ETIWANDA
CHERRY
CITRUS
ALDER
JURUPA
JURUPA
MULBERRY
SIERRA
CEDAR
N
Miles
0
0.5
1
2

Table __:

Fontana Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Augusta Dr E	Sierra Lakes Pkwy	Hacienda Way	II	1.01	$50,500
Augusta Dr W	Hacienda Way	Sierra Lakes Pkwy	II	1.10	$55,000
Baseline Rd	East Ave	Sierra Ave	II	4.56	$228,000
Beech Ave	Baseline Ave	Miller Ave	II	0.49	$24,500
Beech Ave	Cherry Ave	Baseline Ave	II	2.81	$140,500
Cherry Ave	Slover Ave	Jurupa Ave	II	1.01	$50,500
Cherry Ave	Beech Ave	Bridlepath Dr N/Oshawa Dr	II	0.95	$47,500
Citrus Ave	s/o Duncan Cnyn Rd	Baseline Ave	II	3.16	$158,000
Duncan Canyon Rd	Bridgepath Dr N/Oshawa Dr	Lytle Creek Dr N	II	1.03	$51,500
Foothill Blvd	East Ave	Cherry Ave	II	1.48	$74,000
Lincoln Loop Rd	Santa Maria Dr	Santa Maria Dr	II	1.42	$71,000
Live Oak Ave	Cherry Ave	Mountain High Dr	II	0.54	$27,000
Muirfield Ln	Citrus Ave	Augusta Dr	II	0.07	$3,500
Pacific Electric Trail	Baseline Ave	Cherry Ave	I	0.45	$450,000
Pacific Electric Trail	Almeria Ave	Palmetto Ave	I	1.99	$1,990,000
San Sevaine Trail	Baseline Rd	Foothill Blvd	I	1.14	$1,140,000
SCE Utility South	Rancherias Rd	Live Oak Ave	I	1.27	$1,270,000
Sierra Ave	S. Highland Ave	Baseline Ave	II	0.83	$41,500
Sierra Lakes Pkwy	Catawba Ave	Sierra Ave	II	1.29	$64,500
Summit Ave	Beech Ave	Sierra Ave	II	2.15	$107,500
Walnut St	San Sevaine Rd	Citrus Ave	II	0.29	$14,500
Walnut St	Citrus Ave	Sierra Ave	II	2.00	$100,000
Yosemite Loop Rd	McKinley Dr	McKinley Dr	II	1.45	$72,500
			Total	**32.49**	**$6,232,000**

Proposed Improvements

Future improvements to the non-motorized network for the City of Fontana will continue along the major transportation corridors throughout the City. Most of the City's future improvements focus on additional Class II facilities, but some new Class I and Class III facilities are proposed. A table of future improvements is included in Table __ below. At this time the Fontana does not have a priority list of improvements. When complete, however, the City will have constructed an additional 84.85 miles of Class I, II and III at a total estimated cost of $26,485,550.

The proposed improvements will provide a significant upgrade to the density and connectivity of the bicycle network in the City.

Additionally, the City of Fontana has not identified any priority improvements as part of this plan.

Table __:

Fontana Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Alder	Baseline	Randall	III	2.51	$37,650
Arrow Blvd	Almeria Ave	Maple Ave	II	3.15	$157,500
Baseline Ave	Sierra Ave	Maple Ave	II	1.76	$88,000
Beech Ave	Baseline Ave	SCE Utility South	II	4.54	$227,000
Cherry Ave	Baseline Ave	Foothill Blvd	II	1.02	$51,000
Cherry Ave	Jurupa Ave	Live Oak Ave	II	0.54	$27,000
Citrus Ave	Baseline Ave	SCE Utility South	II	5.17	$258,500
Cypress Ave	Ceres Ave	Santa Ana Ave	II	2.54	$127,000
Duncan Canyon Rd	Lytle Creek Rd N	Sierra Ave	II	1.60	$80,000
Fontana Ave	Citrus Ave	Poplar Ave	II	0.70	$35,000
Foothill Blvd	Cherry Ave	Maple Ave	II	4.78	$239,000
Juniper	Baseline	San Bernardino	III	3.01	$45,150
Live Oak Ave	SCE Utility South	Cherry Ave	II	0.53	$26,500
Live Oak Ave	Mountain High Dr	Long View Dr	II	0.42	$21,000
Mango Ave	Riverside Ave	Summit Valley Rd	II	1.80	$90,000
Mango Ave	Valencia Ave	Merrill Ave	III	0.37	$5,550
Merrill Ave	Mango Ave	Alder Ave	III	0.75	$11,250
Merrill Ave	Citrus Ave	Alder Ave	III	2.04	$30,600
Pacific Electric Trail	I-15	Baseline Ave	I	0.88	$880,000
Pacific Electric Trail	Cherry Ave	Almeria Ave	I	1.88	$1,880,000
Pacific Electric Trail	Palmetto Ave	Maple Ave	I	1.25	$1,250,000
Poplar Ave	Fontana Ave	Beech Ave	II	2.99	$149,500
San Bernardino Ave	Fontana Ave	Alder Ave	II	2.78	$139,000
San Sevaine Tr	Foothill Blvd	S. City Limit	I	5.02	$5,020,000
Santa Ana Ave	San Sevaine Tr	Mulberry Ave	II	0.48	$24,000
Santa Ana Ave	Almond St	Tamarind Ave	II	4.05	$202,500
SCE Utility North	Sierra Ave	East Ave	I	6.48	$6,480,000
SCE Utility North Spur I	W. City Limit	SCE Utility North	I	1.66	$1,660,000
SCE Utility North Spur II	Lytle Creek Rd	SCE Utility North	I	0.62	$620,000
SCE Utility South	Live Oak Ave	Citrus Ave	I	1.56	$1,560,000
SCE Utility South	Citrus Ave	Locust Ave	I	2.63	$2,630,000
SCE Utility South	San Sevaine Tr	Rancherias Dr	I	0.80	$800,000
Sierra Ave	Lytle Creek Rd	Sierra Lakes Pkwy	II	3.21	$160,500
Sierra Ave	Baseline Ave	S. City Limit	II	6.05	$302,500
Sierra Lakes Pkwy	Cherry Ave	Lytle Creek Rd	II	0.74	$37,000
Sierra Lakes Pkwy	Lytle Creek Rd	Catawba Ave	II	0.49	$24,500
SR-210 Drainage	San Sevaine Rd	Knox Ave	I	0.99	$990,000
Valencia Ave	Oleander Ave	Mango Ave	III	0.99	$14,850
Walnut Ave	Hemlock Ave	Beech Ave	II	0.25	$12,500
Walnut Ave	Cherry Ave	San Sevaine Rd	II	1.57	$78,500
Walnut Village Pkwy	Sierra Ave	Mango Ave	II	0.25	$12,500
			Total	**84.85**	**$26,485,550**

Table __:
Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a

Municipal Code

Fontana Municipal Code Division 4, Section 30-336(c) provides the following requirements related to pedestrian access and circulation:

Section 30-336 (c)

1) *Pedestrian*
   a. On-site pedestrian circulation systems shall be provided to meet the movement needs of on-site users. Such systems shall provide safe, all-weather surfaces and aesthetically pleasing means of on-site foot travel. Pedestrian walkways shall be an integrated part of the overall architecture and site design concept.
   b. Pedestrian and bicycle access shall be conveniently provided to connect surrounding land uses and commercial or mixed uses.
   c. All new commercial and mixed-use development shall be accessible to persons with disabilities as required elsewhere in Division 4.
   d. All primary ground-floor common entries and individual dwelling unit entries for mixed-use projects fronting on streets should be oriented to the street, not to the interior or the parking lot.
   e. On-site pedestrian circulation for mixed-use projects should be continuous and connect various uses on the site, as well as connect to off-site transit stops and parking.

Section 30-342 *General*

- All employers shall provide bicycle parking. There shall be no bike parking on sidewalks unless additional area is provided which does not conflict with sidewalk or entryway. Bicycle and parking facilities should be located in an area of the parking lot convenient to destination entrances for employees as well as for patrons. Bicycle parking facilities should be located in highly visible areas to minimize theft and vandalism and should not interfere with pedestrian traffic. Employees with 100 or more employees shall provide shower and locker facilities to encourage non-motorized travel such as bicycling and walking. Cycle parking facilities should be placed on paved surfaces, well lighted and should be protected from potential damage by other vehicle traffic. All motorcycle parking areas shall be paved with concrete to prevent motorcycle kickstands from damaging the pavement and should be clearly identified for motorcycle usage.

Section 30-343 *Dimensions*

- Parking racks for bicycles shall be of a size and design which will accommodate the required bicycles. Table 30-343A provides the number of rack by land use type.

End of Trip Facilities

The City of Fontana has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Facility	Facility Type	Facility Location
Fontana Metrolink Station	Train Station	16777 Orange Way
South Fontana TransCenter	Bus Station	Sierra/Marygold/Valley
City-wide Bus Stops	Bus Stops	Throughout City
Beech PNR	Ride Share Lot	Beech/SR-210
Victoria TMC PNR	Ride Share Lot	13850 Victoria St.

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	179
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	35.8
Average Bicycle Collision Rate per 1000/year[1]	0.22
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Fontana participates in the Police Department's annual Safety Preparedness Fair, which provides bicycle safety training.

In addition to the annual event sponsored by the Police Department, the following activities take place on a less regular basis:

- The Police Department provides pamphlets available at all events discussing bicycle and pedestrian safety.
- The Police Department will occasionally host "Bicycle Rodeos, which includes a large safety element to the program.
- The Recreation Department will coordinate bike clubs at the elementary and middle schools whose student populations use the PE Trail to commute to school.

City of Grand Terrace

Population

12,717

City Overview

The City of Grand Terrace is the smallest city by population and area in San Bernardino "East Valley." Incorporated in 1978, the City is located along the southern border of San Bernardino County adjacent to Riverside County and is bounded to the north, east, and west by the City of Colton and to the south by the unincorporated community of Highgrove in Riverside County. The City encompasses approximately 3.6 square miles and has no external sphere of influence.

Land Use

Grand Terrace is predominantly a residential community. The City was formerly an unincorporated residential enclave surrounded by the City of Colton and unincorporated Riverside County. Although the City is predominately residential, industrial and warehouses are clustered adjacent to Interstate 215. In addition, Barton Road serves as a commercial corridor. Since the majority of the community is located on the west side of Blue Mountain, the terrain offered scenic views that attracted residents.

Existing Conditions:

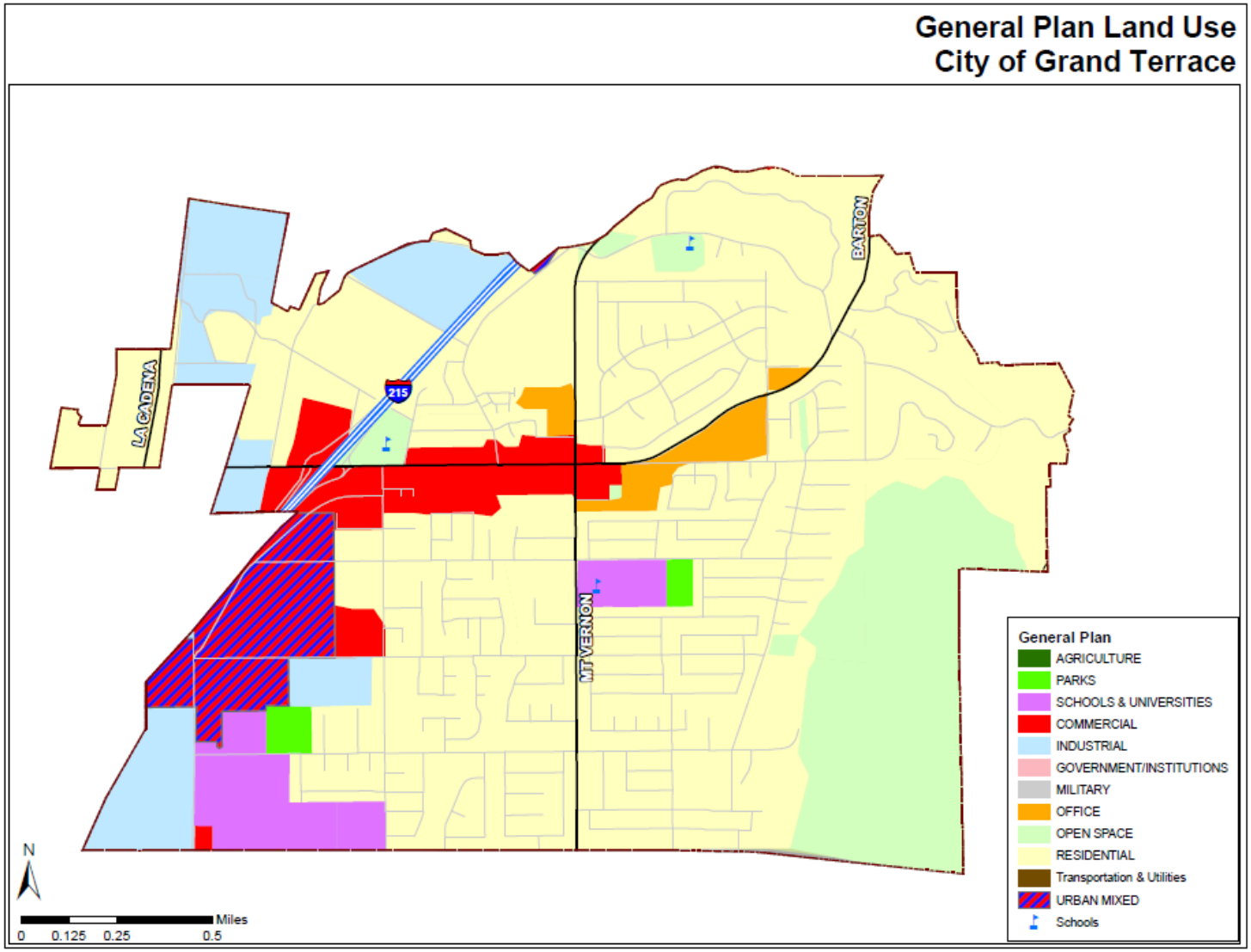
Grand Terrace's existing non-motorized bicycle network is composed of the City's two major arterial corridors—Barton Road and Mt. Vernon Avenue. The City has striped 2.71 miles of Class II bike lanes and 0.50 miles of Class III bike routes throughout the City.

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Grand Terrace has constructed 2.7 miles of Class II and 0.5 miles of Class III facilities at a rate of 0.36 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Grand Terrace. Based on planning level estimates, the value of the improvements implemented throughout the City is $107,650.


General Plan Land Use
City of Grand Terrace
LA CADENA
215
BARTON
MT VERNON
N
Miles
0 0.125 0.25 0.5
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

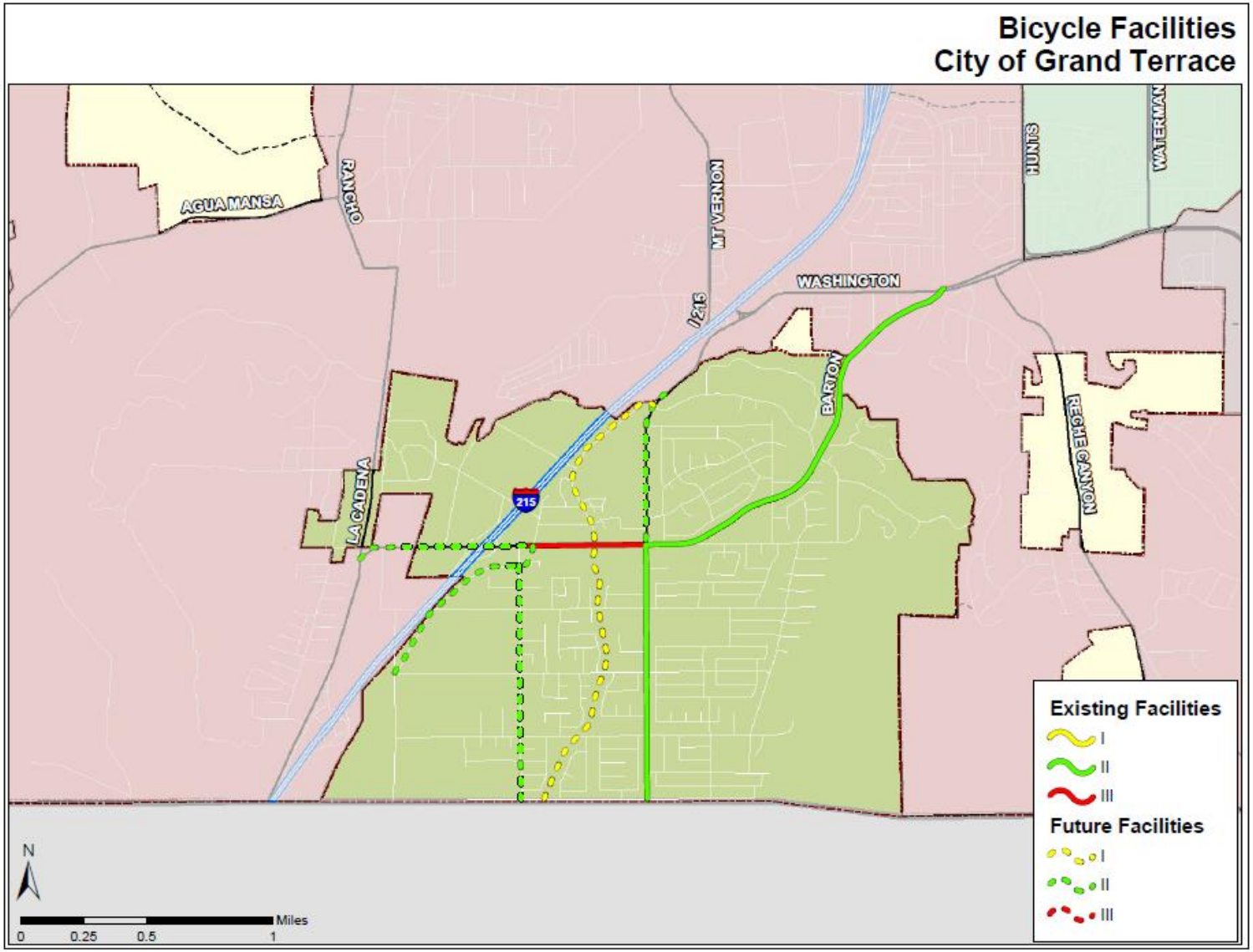

Bicycle Facilities
City of Grand Terrace
AGUA MANSA
RANCHO
MT VERNON
I-215
WASHINGTON
HUNTS
WATERMAN
BARTON
REDLANDS
REACHE CANYON
215
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0
0.25
0.5
1

Table __:

Grand Terrace Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Barton Rd.	Michigan St.	Mt Vernon Ave.	III	0.50	$7,500
Barton Rd.	Mt Vernon Ave.	Washington St.	II	1.70	$85,000
Mt Vernon Ave.	Barton Rd.	Main St.	II	1.01	$15,150
			Total	**3.21**	**$107,650**

Proposed Improvements

Future improvements to the non-motorized network for the City of Grand Terrace will continue along the major transportation corridors throughout the City. All future improvements focus on development of Class I and Class II facilities. All proposed future improvements are included in Table __ below.

The priority improvements for the City of Grand Terrace include Mount Vernon Ave., Barton Rd., Commerce Way and Michigan St. When complete, the City will have constructed an additional 4.89 miles of Class I and Class II, providing additional connectivity to communities in the East San Bernardino Valley and the County of Riverside.

Table __:

Grand Terrace Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Barton Rd.	La Cadena Dr.	Vivienda St.	II	0.70	$35,000
Commerce Way	Barton Rd.	Main St.	II	0.80	$40,000
Gage Canal	Mt Vernon Ave.	Main St.	I	1.84	$1,840,000
Michigan St.	Commerce Way	Main St.	II	0.93	$46,500
Mt Vernon Ave.	N. City Limits	Barton Rd.	II	0.62	$31,000
Cage Park Staging Area	Main St.	Taylor St.	n/a	n/a	$100,000
			Total	**4.89**	**$2,092,500**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Barton Rd.	La Cadena Dr.	Vivienda St.	II	0.70	$35,000
Commerce Way	Barton Rd.	Main St.	II	0.80	$40,000
Michigan St.	Commerce Way	Main St.	II	0.93	$46,500
Mt Vernon Ave.	N. City Limits	Barton Rd.	II	0.62	$31,000
			Total	**3.05**	**$152,500**

Municipal Code

In January 1994, the City adopted Ordinance # 147, implementing transportation control measures (TCM's) to reduce air pollutant emissions. The ordinance enacted design standards for new nonresidential and multifamily developments to install bicycle racks and other ancillary facilities.

End of Trip Facilities

The City of Grand Terrace has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	2
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	0.4
Average Bicycle Collision Rate per 1000/year[1]	0.03
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The San Bernardino County Sheriff's Department, Office of Community Services has developed a thorough bicycle safety and education program targeted for public schools. In the City of Grand Terrace, a Sheriff's Department Community Services Officer visits each school site at least once a month. At these meetings, the Community Services Officer regularly distributes information on bike safety and discusses this topic with the students.

City of Hesperia

Population

88,479

City Overview

Hesperia is located north of the Cajon pass, 35 miles north of San Bernardino, 80 miles northeast of Los Angeles and 195 miles south of Las Vegas, Nevada at the intersection of Highway 395 and Interstate 15. Hesperia is one of four incorporated cities in the Victor Valley region of San Bernardino County. Hesperia's incorporated area and sphere of influence encompasses approximately 110 square miles.

The City of Hesperia is located in a transitional area between the foothills of the San Bernardino Mountains to the south and the Mojave Desert to the north. As a result, the planning area contains a variety of slope conditions, soil types, plant communities and other physical characteristics which vary from south to north. The planning area generally slopes from southwest to northeast, with surface and subsurface flows trending away from the foothills and towards the Mojave River, which flows north towards the City of Barstow. While the foothill areas within Summit Valley contain significant slopes, the majority of the planning area is fairly level.

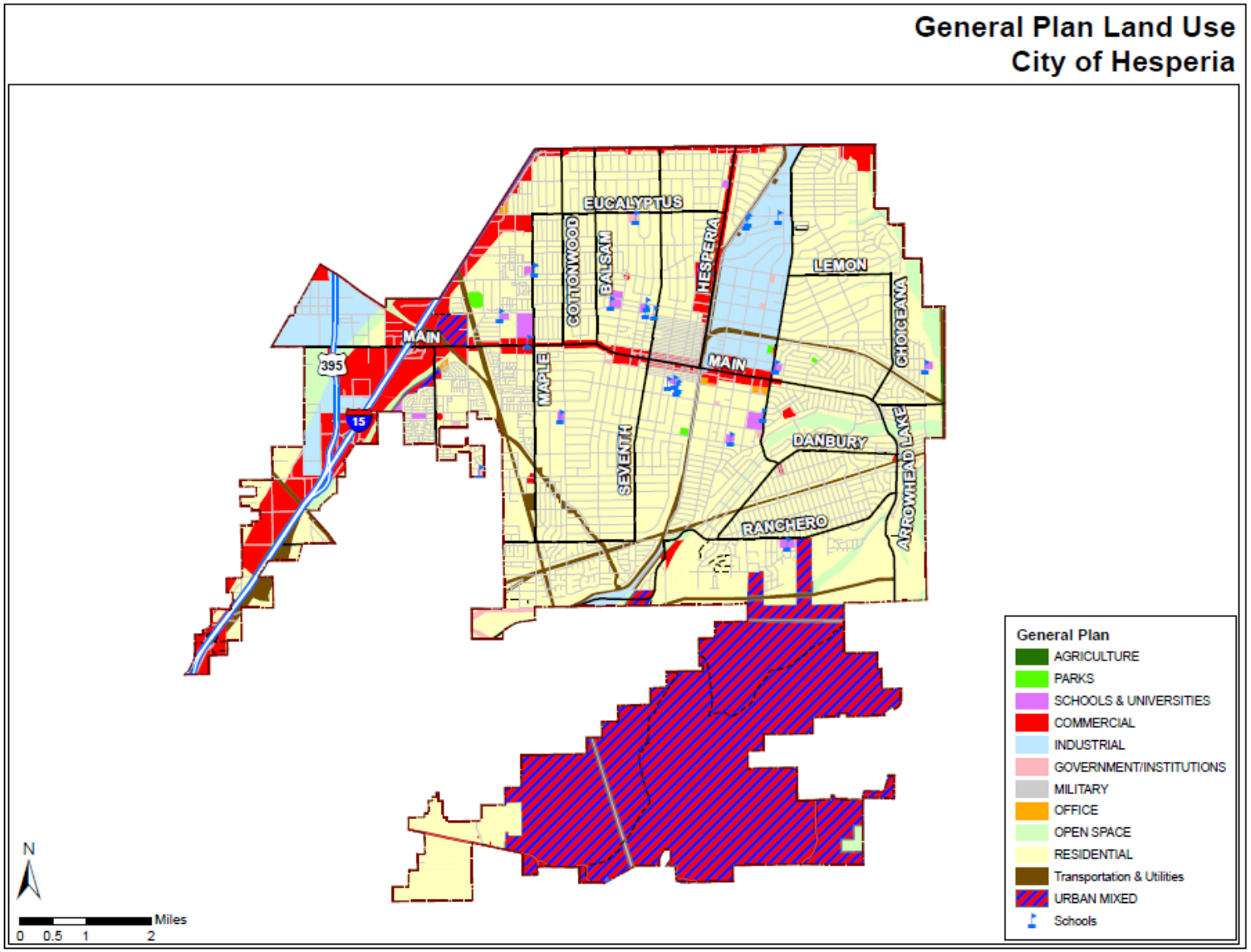
Land Use

Existing residential development within the City of Hesperia consists of predominantly single family detached housing on lots of one-half acre or larger. Most of the existing residential lots are located within the core area of the town, generally bounded by Maple Avenue and the Mojave River, and by Bear Valley Road and Ranchero Road. Within this core area, the majority of residential lot sizes have traditionally ranged from 18,000 square feet to one acre.

The majority of commercial and industrial land uses are located along Main St., Bear Valley Rd., the BNSF Railroad, Hesperia Rd., and I Ave. The map on page ___ shows the General Plan land use designations for the City of Hesperia.

Existing Conditions:

Hesperia's non-motorized bicycle network has expanded significantly since the last update to the Non-Motorized Transportation Plan. A major emphasis of the City has been to include Class II bike lanes as part of its pavement rehabilitation program. Consequently, since 2001, the City has constructed 28.9 miles of Class II bike lanes throughout the City. In addition, the City also contains two small segments of Class I bike paths, a total of 2.91 miles, along Ranchero Rd. and Willow St.


General Plan Land Use
City of Hesperia
EUCALYPTUS
COTTONWOOD
BALSAM
HESPERIA
LEMON
CHOICEANA
MAIN
MAPLE
SEVENTH
DANBURY
ARROWHEAD LAKE
RANCHERO
395
15
N
Miles
0 0.5 1 2
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

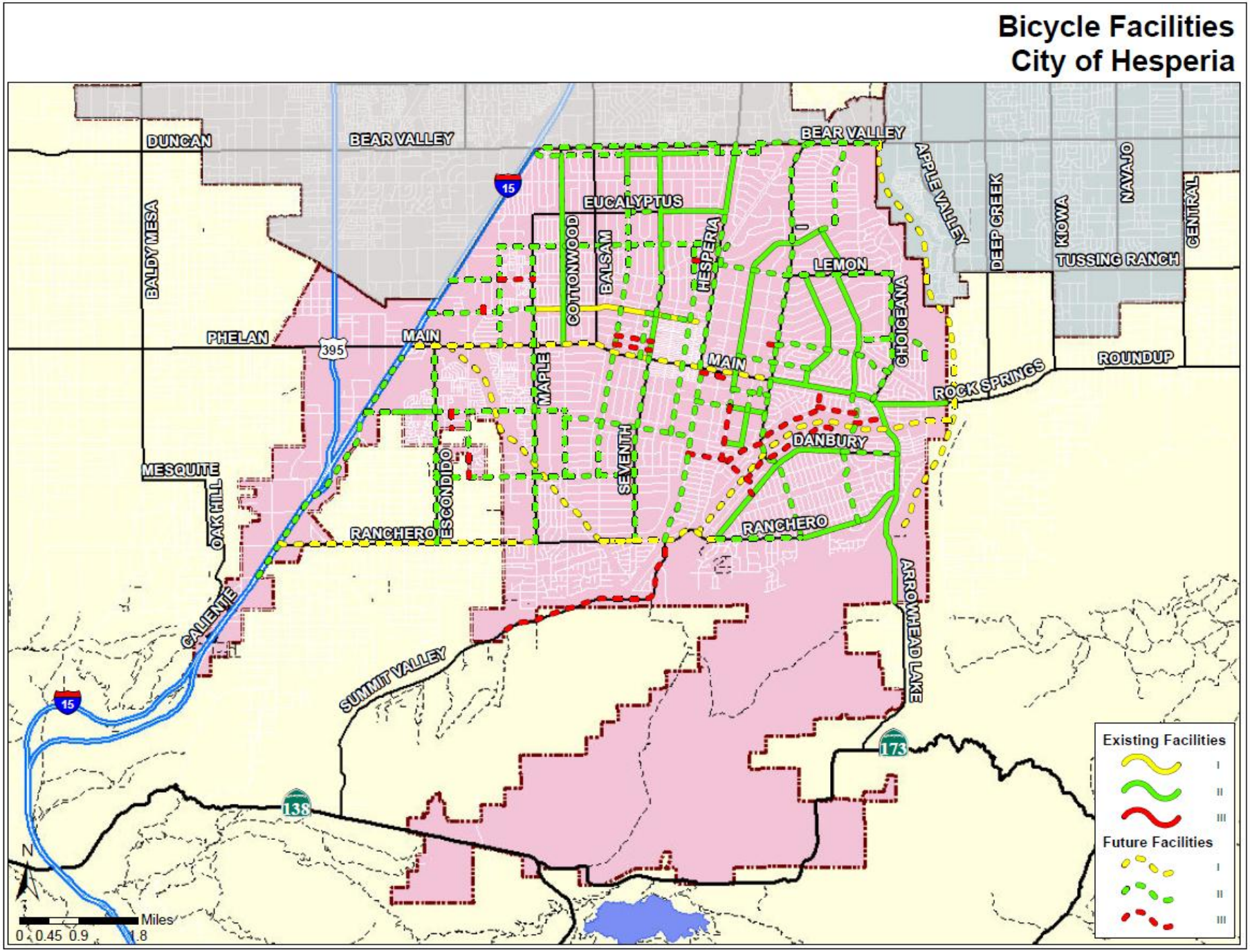

Bicycle Facilities
City of Hesperia
DUNCAN
BEAR VALLEY
BEAR VALLEY
APPLE VALLEY
DEEP CREEK
KIOWA
NAVAJO
CENTRAL
TUSSING RANCH
ROUNDUP
BALDY MESA
EUCALYPTUS
COTTONWOOD
BALSAM
HESPERIA
I
LEMON
CHOICEANA
PHELAN
MAIN
MAIN
MAPLE
ROCK SPRINGS
DANBURY
MESQUITE
OAK HILL
ESCONDIDO
SEVENTH
RANCHERO
RANCHERO
ARROWHEAD LAKE
CALIENTE
SUMMIT VALLEY
15
395
15
138
173
N
Miles
0 0.45 0.9 1.8
Existing Facilities
I
II
III
Future Facilities
I
II
III

Table __:
Hesperia Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
11th Ave	Bear Valley Rd	Sycamore St	II	0.49	$24,500
7th Ave	Willow St	Main St	II	0.67	$33,500
7th Ave	Bear Valley Rd	Verde St	II	1.88	$94,000
Arrowhead Lake Rd	Main St	S. City Limit	II	3.14	$157,000
Cottonwood Ave	Sequoia St	Main St	II	2.87	$143,500
Danbury Ave	Ranchero St	Peach Ave	II	2.53	$126,500
E Ave	Peach Ave	Olive St	II	3.12	$156,000
Eucalyptus St	7th Ave	Hesperia Rd	II	0.99	$49,500
G Ave	Sultana St	Lime St	II	0.54	$27,000
Hesperia Rd	Bear Valley Rd	Eucalyptus St	II	1.05	$52,500
Lime St	E Ave	G Ave	II	0.27	$13,500
Main St	I Ave	Rock Springs Rd	II	1.69	$84,500
Muscatel St	Vincent Dr	Escondido Ave	II	0.62	$31,000
Peach Ave	E Ave	Main St	II	2.64	$132,000
Ranchero Rd	Maple Ave	Tenth Ave	I	0.39	$390,000
Ranchero Rd	I Ave	Arrowhead Lake Rd	II	1.68	$84,000
Rock Springs Rd	Main St	E City Limits	II	1.04	$52,000
Sequoia St	Hickory Ave	Calcite Ave	II	1.25	$62,500
Sultana St	E Ave	I Ave	II	0.54	$27,000
Timberlane Ave	Lemon St	Main St	II	1.89	$94,500
Willow St	Maple Ave	3rd Ave	I	2.52	$2,520,000
			Total	**31.81**	**$4,355,000**

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Hesperia. Based on planning level estimates, the value of the improvements implemented throughout the City is $4,355,000.

Proposed Improvements

Future improvements to the non-motorized network for the City of Hesperia will continue along the major transportation corridors throughout the City. All future improvements focus on further development of additional Class II facilities. A table of future improvements is included in Table __ below.

Table __:

Hesperia Proposed Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
11th Ave	Sycamore St	Mesquite St	II	4.56	$228,000
3rd Ave	Mesa St	Lime St	II	2.91	$145,500
7th Ave	Verde St	Willow St	II	0.69	$34,500
7th Ave	Main St	Ranchero Rd	II	2.79	$139,500
8th Ave	Live Oak St	Main St	II	0.52	$26,000
Apatite Ave	Bear Valley Rd	Sequoia St	II	0.13	$6,500
Bangor Ave	Joshua St	Hinton St	III	1.80	$27,000
Bear Valley Rd	Mariposa Rd	Bornite Ave	II	2.61	$130,500
Bear Valley Rd	Apatite Ave	City Limits	II	1.80	$90,000
Bornite Ave	Bear Valley Rd	Sequoia St	II	0.12	$6,000
Buckthorn St	Joshua St	Main St	III	1.95	$29,250
California Aqueduct	Main St	Ranchero Rd	I	3.86	$3,860,000
Centennial St	Peach Ave	Arrowhead Lake Rd	III	0.43	$6,450
Choiceana Ave	Lemon St	Main St	II	2.01	$100,500
Cottonwood Ave	Muscatel St	Mesquite St	II	1.00	$50,000
Danbury Ave	Peach Ave	Arrowhead Lake Rd	II	0.83	$41,500
Datura Ave	Live Oak St	Courtney St	III	0.11	$1,650
Drainage Channel	Mojave River	Ranchero Rd	I	4.63	$4,630,000
E Ave	Olive St	Sultana St	II	0.27	$13,500
E Ave	Sultana St	Joshua St	III	0.81	$12,150
Escondido Ave	Main St	Ranchero Rd	II	3.00	$150,000
Eucalyptus St	11th Ave	7th Ave	II	0.49	$24,500
Fuente Ave	Muscatel Rd	Cedar St	II	0.50	$25,000
Fuente Ave	Cedar St	Mesquite St	III	0.49	$7,350
G Ave	Olive St	Sultana St	II	0.27	$13,500
H Ave	Main St	Olive St	II	0.24	$12,000
Hesperia Rd	Main St	Eucalyptus Ave	II	2.39	$119,500
I Ave	Bear Valley Rd	Ranchero Rd	II	6.34	$317,000
Jacaranda Ave	Bear Valley Rd	Peach Ave	II	1.49	$74,500
Joshua St	Santa Fe Ave	Danbury	III	1.30	$19,500
Juniper St	Eleventh Ave	Seventh Ave	III	0.54	$8,100
Lemon St	Santa Fe Ave	City Limits	II	2.73	$136,500
Lemon St	Third Ave	First Ave	III	0.20	$3,000
Lime St	Cottonwood Ave	Santa Fe Ave	II	1.90	$95,000
Live Oak St	Mariposa Rd	Maple Ave	II	1.58	$79,000
Live Oak St	Live Oak Park	I Ave	III	0.12	$1,800
Live Oak St	I Ave	Choiceana Ave	II	1.82	$91,000
Main St	Mariposa Rd	I Ave	I	5.46	$5,460,000
Maple Ave	Mesa St	Ranchero Rd	II	4.51	$225,500
Mariposa Rd	Bear Valley Rd	Farmington St	II	4.04	$202,000
Mesa St	Topaz Ave	Hesperia Rd	II	3.36	$168,000
Mesa St	Muscatel Rd	Palm Ave	III	0.25	$3,750
Mesquite St	Escondido Ave	7th Ave	II	3.02	$151,000
Mojave Riverwalk	Bear Valley Rd	Heritage Lake Park	I	6.35	$6,350,000
Mojave St	Mariposa Rd	Topaz Ave	II	0.74	$37,000

Street/Path	From	To	Class	Mileage	Est. Cost
Mojave St	Topaz Ave	Maple Ave	III	0.51	$7,650
Muscatel Rd	Mariposa Rd	Vincent Dr	II	0.42	$21,000
Muscatel Rd	Escondido Ave	Cottonwood Ave	II	1.97	$98,500
Olive St	E Ave	I Ave	II	0.54	$27,000
Orange St	Buckthorn Ave	Peach Ave	III	0.59	$8,850
Peach Ave	Main St	Ranchero Rd	II	2.11	$105,500
Ranchero Rd	Mariposa Rd	Maple Ave	I	3.90	$3,900,000
Ranchero Rd	Tenth Ave	Danbury	I	1.87	$1,870,000
Ranchero Rd	Danbury Ave	I Ave	II	1.25	$62,500
Santa Fe Ave	Darwin Ave	Lemon St	II	0.38	$19,000
Santa Fe Ave	Walnut St	Ranchero Rd	II	2.63	$131,500
Sequoia St	Mariposa Rd	Hickory Ave	II	1.26	$63,000
Sequoia St	Calcite Ave	Apatite Ave	II	0.87	$43,500
Smoke Tree St	11th Ave	7th Ave	III	0.54	$8,100
Smoke Tree St	E Ave	Timberlane	II	1.09	$54,500
Sultana St	Santa Fe Ave	E Ave	II	0.51	$25,500
Summit Valley Rd	Ranchero Rd	past Telephone Cyn	III	3.22	$48,300
Topaz Ave	Mesa St	Main St	II	1.50	$75,000
Walnut St	Santa Fe Ave	E Ave	III	0.51	$7,650
Willow St	8th Ave	3rd Ave	II	0.65	$32,500
Willow St/Glendale Ave	Peach Ave	Benicia St	II	1.19	$59,500
			Total	**114.76**	**$30,022,050**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

The City of Hesperia has not identified any priority improvement projects as part of this plan.

Municipal Code

The municipal code for the City of Hesperia does not currently include the mandatory requirement for the inclusion of non-motorized serving infrastructure as part of the site design process.

End of Trip Facilities

The City of Hesperia has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

The City of Hesperia has the following multimodal facilities that interface with the non-motorized transportation system.

Table __:

Multimodal Connectivity

Facility	Facility Type	Facility Location
Hesperia Blvd PNR Lot	Ride Share Lot	US 395 & Joshua St
Hesperia Transit Center	Multi-Modal Facility	
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	43
Total # of Bicycle Fatalities from 2005-2009	2
Average # of Bicycle Collisions Per Year	8.6
Average Bicycle Collision Rate per 1000/year[1]	0.11
Index (relative to statewide average of __/1000[2]	

Notes:
1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Hesperia does not currently participate in any bicycle safety or education programs.

City of Highland

Population

52,495

City Overview

The City of Highland is currently home to 53,000 residents in an area that is approximately 18 square miles. The City is bordered on the north and east by the San Bernardino Mountains and San Bernardino National Forest and is located adjacent to the Santa Ana River. When Highland incorporated in 1987, the population was 29,500. Since incorporation, Highland's population has grown by 67%. The buildout for the City is estimated to be 70,000 residents—just over 40 percent beyond our current population.

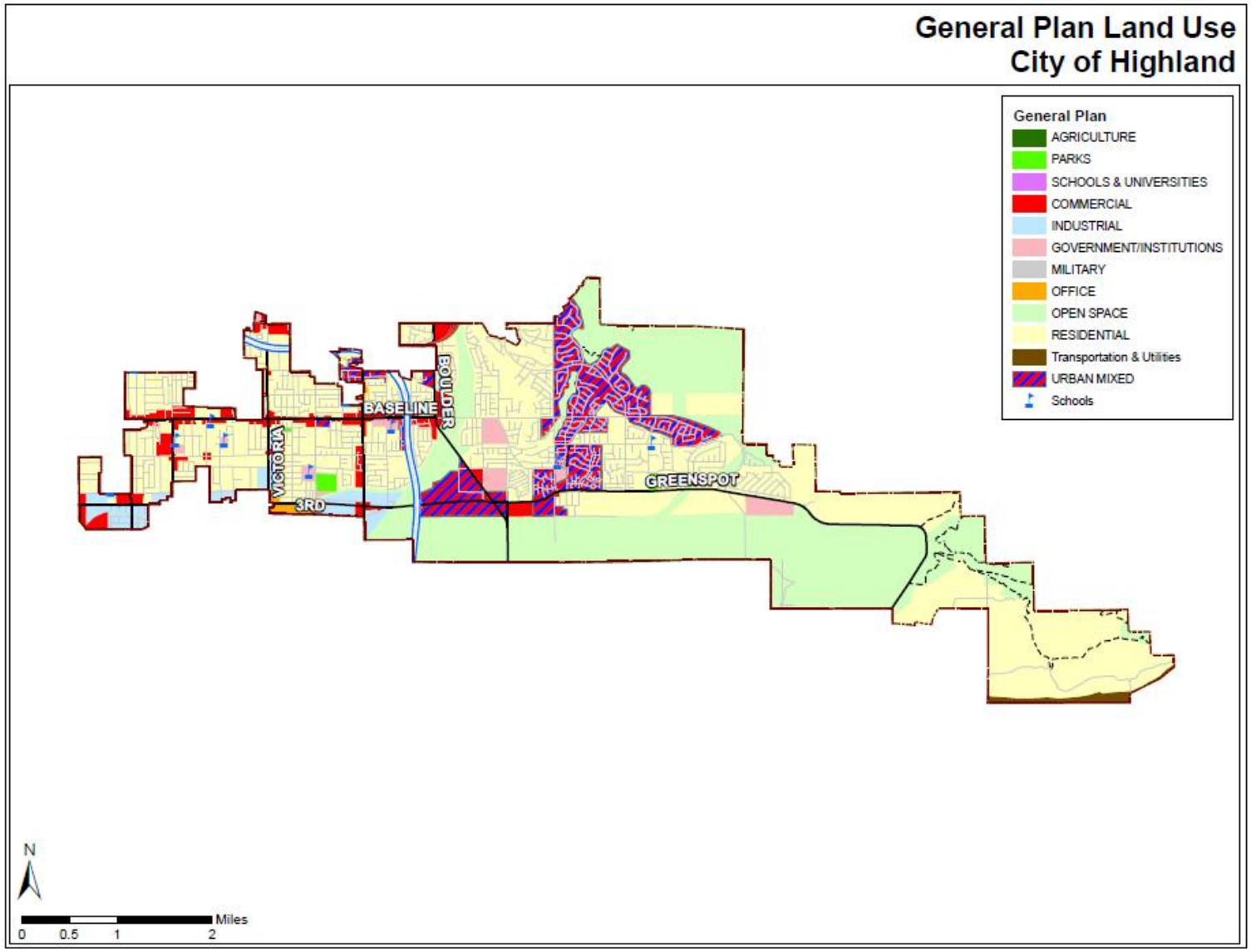
Highland's original town site was founded in 1891. The community soon became an important part of the citrus industry—and a number of former packinghouses still exist within the community. The historic Old Town still displays commercial and residential structures from the City's early period. They remain as symbols of the sense of community and respect for tradition that characterize Highland today.

Land Use

Highland is predominantly a residential community; over 60 percent of the City's 11,948 acres of land is planned for residential development. The dominance of residential lands can be attributed to the circumstances surrounding the City's incorporation. Before incorporation, Highland's land area was in the City of San Bernardino's sphere of influence. Much of the property that would naturally have hosted Highland's retail or industrial uses was annexed to San Bernardino, leaving only those areas that logically could be developed in residential based uses. Additionally, more than 20 percent of the City is designated primarily for open space, due primarily to the City's proximity to the San Bernardino Mountains, the San Bernardino International Airport, the Santa Ana River Basin and City Creek and Plunge Creek running through the southern part of Highland.

Existing Conditions:

Highland's existing non-motorized bicycle network is composed of the City's two major east-west arterial corridors—Base Line and Greenspot Road—and two major north-south corridors—Boulder Avenue and Church Street. The City has a total of 9.27 miles of Class II bike lanes throughout the City.


General Plan Land Use
City of Highland
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
BASELINE
BOULDER
VICTORIA
3RD
GREENSPOT
N
Miles
0
0.5
1
2

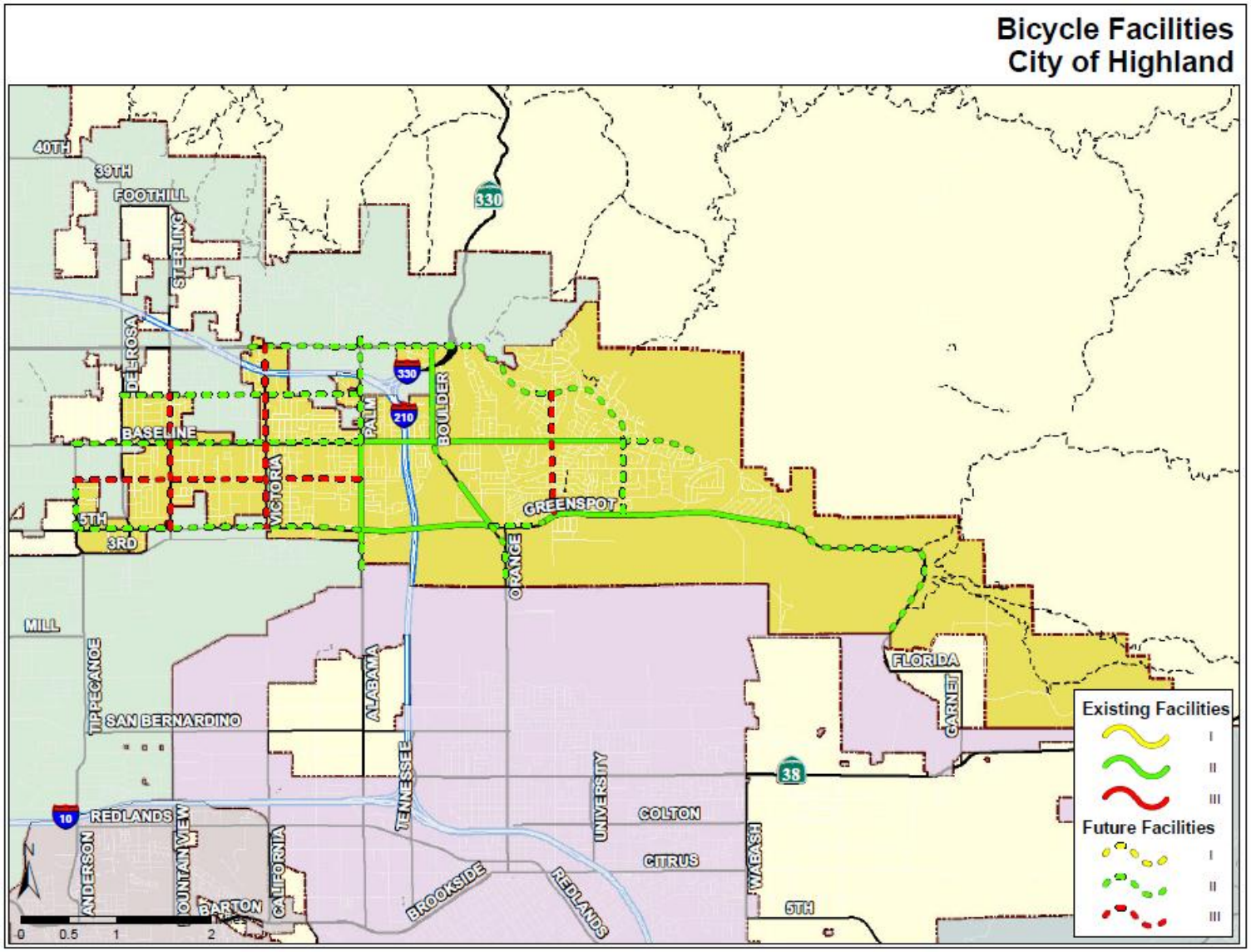

Bicycle Facilities
City of Highland
40TH
39TH
FOOTHILL
STERLING
DE LA ROSA
BASELINE
VICTORIA
PALM
BOULDER
330
210
GREENSPOT
5TH
3RD
ORANGE
MILL
TIPPECANOE
SAN BERNARDINO
ALABAMA
TENNESSEE
FLORIDA
GARNET
38
10
REDLANDS
ANDERSON
MOUNTAIN VIEW
CALIFORNIA
BARTON
BROOKSIDE
UNIVERSITY
COLTON
CITRUS
WABASH
5TH
0 0.5 1 2
Existing Facilities
I
II
III
Future Facilities
I
II
III

Table __:

Highland Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
5th St.	Palm Ave.	SR-210	II	0.56	$28,000
Base Line St.	Palm Ave.	Weaver St.	II	2.75	$137,500
Boulder Ave.	Highland Ave.	Base Line Rd.	II	1.01	$50,500
Boulder Ave.	s/o City Creek Bridge.	Greenspot Rd.	II	0.56	$28,000
Greenspot Rd.	SR-210	Boulder Ave.	II	0.81	$40,500
Greenspot Rd.	Valencia Ct.	Santa Paula St.	II	2.54	$127,000
Palm Ave.	Base Line St.	3rd St.	II	1.04	$52,000
			Total	**9.27**	**$463,500**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Highland has constructed 9.27 miles of Class II facilities at a rate of 1.03 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Highland. Based on planning level estimates, the value of the improvements implemented throughout the City is $463,000

Proposed Improvements

Future improvements to the non-motorized network for the City of Highland will continue along the major transportation corridors throughout the City. All future improvements focus on development of Class I and Class II facilities. All proposed future improvements are included in Table __ below.

The priority projects for the City of Highland are included in Table __ below. Priority corridors include 5th St., Base Line, Boulder Ave., Church St., Greenspot Rd., Highland Ave., Weaver St.

When complete, the City will have constructed an additional 27.97 miles of Class II and Class III, providing additional internal connectivity to the residents of Highland and increased connectivity to communities in the East San Bernardino Valley.

Table __:

Highland Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
5th St.	Tippecanoe Ave.	Palm Ave.	II	3.00	$150,000
9th St.	Tippecanoe Ave.	Palm Ave.	III	2.99	$44,850
Base Line	Tippecanoe Ave.	Palm Ave.	II	2.99	$149,500
Base Line	Weaver St.	Alta Vista	II	0.84	$42,000
Boulder Ave.	n/s City Creek Trail	s/s City Creek Trail	II	0.20	$10,000
Boulder Ave./Orange St.	Greenspot Rd.	South City Limit	II	0.68	$34,000
Church St.	Highland Ave.	Greenspot Rd.	III	1.28	$19,200
Greenspot Rd.	Boulder Ave.	Valencia Ct.	II	0.55	$27,500
Greenspot Rd.	Santa Paula St.	E. City Limit	II	2.51	$125,500
Highland Ave.	Rockford Ave.	Base Line	II	4.48	$224,000
Pacific St.	Del Rosa Dr.	Palm Ave.	II	2.50	$125,000
Palm Ave.	3rd St.	s/o City Creek	II	0.28	$14,000
Palm Ave.	Orchid Dr.	Base Line	II	1.10	$55,000
Sterling St.	Pacific St.	5th St.	III	1.40	$21,000
Tippecanoe Ave.	9th St.	5th St.	II	0.51	$25,500
Victoria Ave.	Highland Ave.	5th St.	III	1.89	$28,350
Weaver St.	Base Line	Greenspot Rd.	II	0.77	$38,500
			Total	**27.97**	**$1,133,900**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
5th St.	Tippecanoe Ave.	Palm Ave.	II	3.00	$150,000
Base Line	Weaver St.	Alta Vista	II	0.84	$42,000
Boulder Ave.	n/s City Creek Trail	s/s City Creek Trail	II	0.20	$10,000
Boulder Ave./Orange St.	Greenspot Rd.	South City Limit	II	0.68	$34,000
Church St.	Highland Ave.	Greenspot Rd.	III	1.28	$19,200
Greenspot Rd.	Boulder Ave.	Valencia Ct.	II	0.55	$27,500
Greenspot Rd.	Santa Paula St.	E. City Limit	II	2.51	$125,500
Highland Ave.	Rockford Ave.	Base Line	II	4.48	$224,000
Weaver St.	Base Line	Greenspot Rd.	II	0.77	$38,500
			Total		

Municipal Code

The City of Highland has not adopted Municipal Code specific to non-motorized transportation or the placement of non-motorized transportation facilities. However, the City adopted a Transportation Control Measures ordinance (Chapter 16.40, Section 16.40.470). That Ordinance commits the City to participate in the implementation of the countywide bicycle plan.

End of Trip Facilities

The City of Highland has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
SB International Airport	Airport	5th Street.
City-wide Bus Stops	Bus Stops	Throughout City
St. Adelaide Church PNR	Park and Ride Lot	27457 E. Base Line

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	41
Total # of Bicycle Fatalities from 2005-2009	2
Average # of Bicycle Collisions Per Year	8.2
Average Bicycle Collision Rate per 1000/year[1]	0.16
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Highland does not currently participate in any bicycle safety or education programs.

City of Loma Linda

Population

22,760

City Overview

The City of Loma Linda is located within western San Bernardino County approximately 60 miles east of the City of Los Angeles, California. The City was incorporated in 1970. Jurisdictions that border the City of Loma Linda include: the Cities of Redlands and San Bernardino to the north; the City of Redlands and unincorporated San Bernardino County to the east; unincorporated Riverside and San Bernardino Counties to the south; and unincorporated San Bernardino County and the Cities of Colton and San Bernardino to the west.

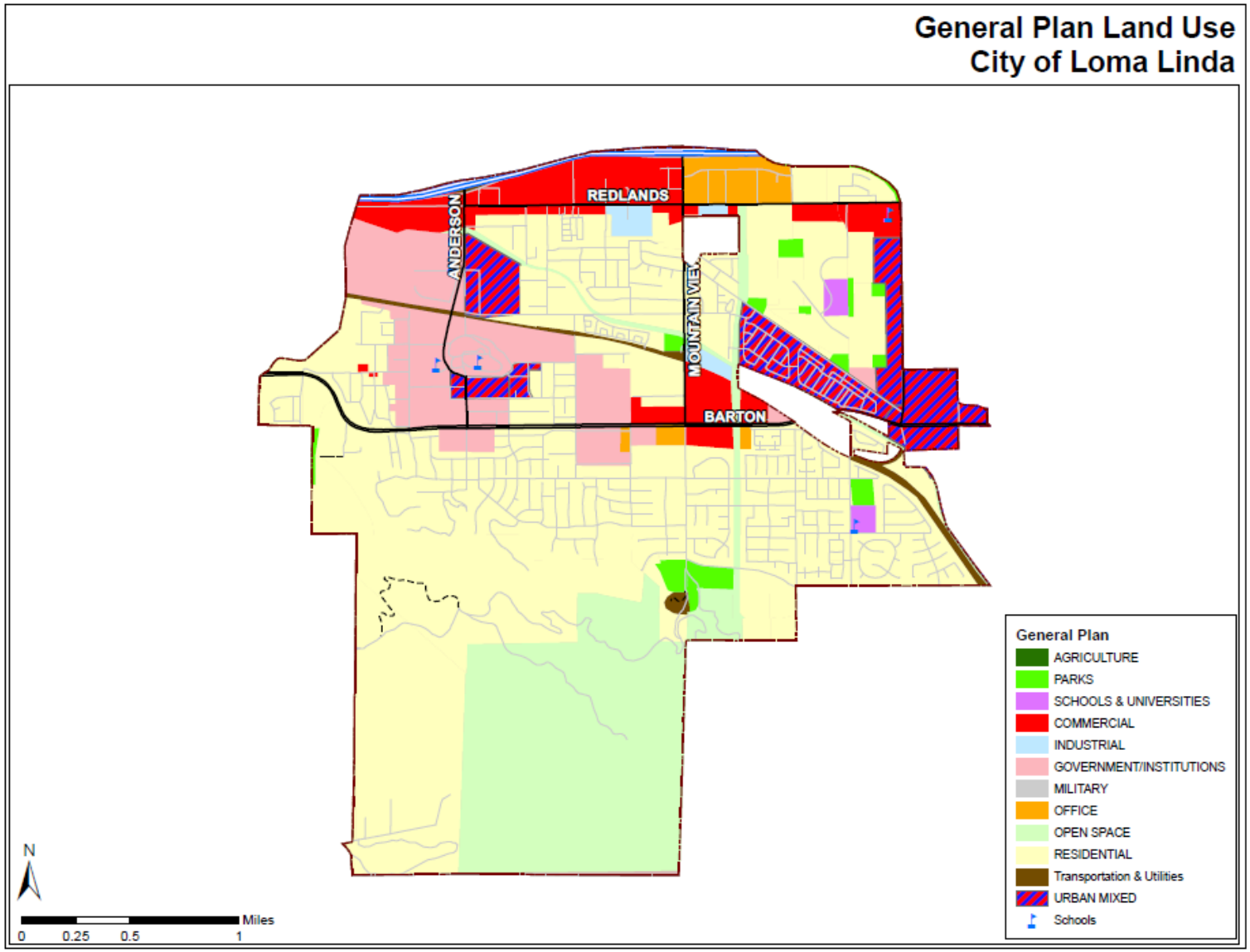
Today, Loma Linda is a unique community with strong ties to its religious, educational and healing arts roots. The Loma Linda University Medical Center (LLUMC) and the Jerry L. Pettis Memorial Veterans Medical Center (VA Medical Center) are both internationally known. The City is also home to Loma Linda University, which, with the VA Medical Center and LLUMC, provides much of the economic base of the community.

Land Use

Loma Linda's land use pattern focuses commercial uses in the northern portion of the City near I-10. Institutional uses are to be located in proximity to such existing uses, such as Loma Linda University (LLU) and Loma Linda Academy. Areas designated for health care uses are also located near to existing similar uses such as Loma Linda University Medical Center (LLUMC), the Jerry L. Pettis VA Medical Center, and the Community Medical Center. Areas for business park exist both at the northern and eastern edges of the community, while industrial uses are located in the eastern portion of the community. Residential uses characterize the central portion of the City (roughly south of Redlands Boulevard), the base of the South Hills, and the flatter areas within the hillsides. A number of mixed-use areas, especially in the eastern portion of the community, allow for a variety of different types of uses (e.g., commercial, office, institutional, and/or residential) to be located next to each other or within the same building.

Existing Conditions:

Loma Linda's existing non-motorized bicycle network is composed of Class I, Class II and Class III facilities. The main emphasis of the system is on Barton Road, which connects to the City of Colton to the west and the City of Redlands to the east.


General Plan Land Use
City of Loma Linda
REDLANDS
ANDERSON
MOUNTAIN VIEW
BARTON
N
Miles
0
0.25
0.5
1
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

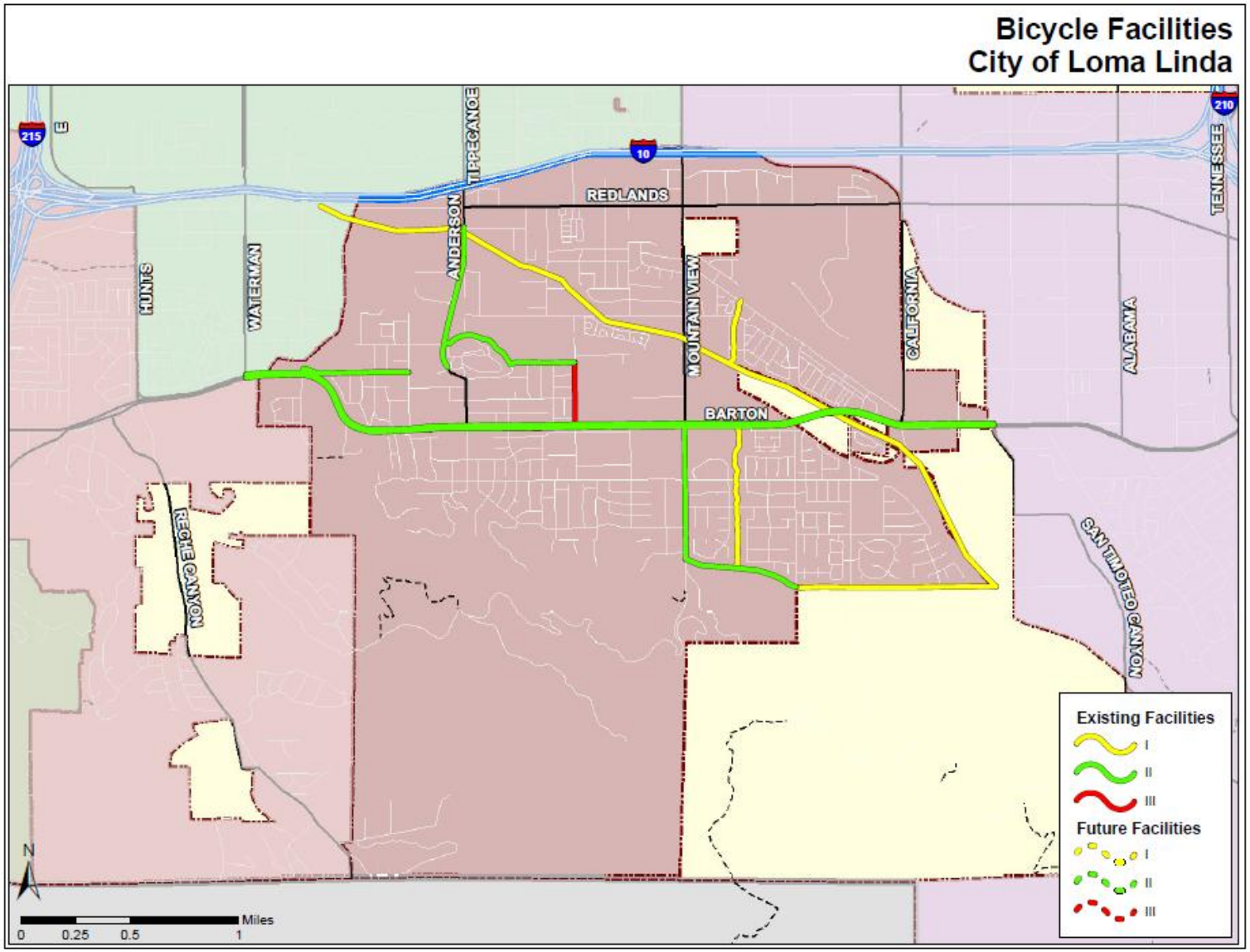

Bicycle Facilities
City of Loma Linda
215
10
210
REDLANDS
TIPPECANOE
ANDERSON
HUNTS
WATERMAN
MOUNTAIN VIEW
CALIFORNIA
ALABAMA
TENNESSEE
BARTON
REECE CANYON
SAN TIMOTEO CANYON
N
0
0.25
0.5
1
Miles
Existing Facilities
I
II
III
Future Facilities
I
II
III

Table __:

Loma Linda Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Anderson St.	Court St.	University Ave.	II	0.66	$33,000
Barton Rd.	Waterman Ave.	San Timoteo Canyon Rd.	II	7.15	$357,500
Beaumont Ave.	Bryn Mawr Ave.	Power Line Easement	I	0.92	$920,000
Beaumont Ave.	Mt View Ave.	Bryn Mawr Ave.	II	0.53	$26,500
Benton St.	Shepardson St.	Barton Rd.	III	0.28	$14,000
Mt View Ave.	Barton Rd.	Beaumont Ave.	II	0.61	$30,500
Power Line Easement	Mission Rd.	San Timoteo Crk Trail	I	0.31	$310,000
Power Line Easement	Newport Ave.	Beaumont Ave.	I	0.68	$680,000
San Timoteo Creek Trail	Redlands Blvd.	Beaumont Ave.	I	3.74	$3,740,000
Shepardson Dr.	Stewart St.	Benton St.	II	0.29	$14,500
Stewart St.	Anderson St.	Shepardson Dr.	II	0.38	$19,000
University Ave.	Barton Rd.	Campus St.	II	0.51	$25,500
			Total	**16.06**	**$6,170,500**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Loma Linda has constructed 5.65 miles of Class I, 6.73 miles of Class II and 0.28 miles of Class III facilities at a rate of 1.41 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Loma Linda. Based on planning level estimates, the value of the improvements implemented throughout the City is $6,170,500.

Proposed Improvements

The City of Loma Linda has not identified any proposed future non-motorized improvements.

Table __:

Loma Linda Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

The City of Loma Linda has not adopted Municipal Code specific to non-motorized transportation or the placement of non-motorized transportation facilities.

End of Trip Facilities

The City of Loma Linda has bike racks dispersed throughout the City, typically at retail centers, schools, multi-unit housing complexes, library and City Hall.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	14
Total # of Bicycle Fatalities from 2005-2009	1
Average # of Bicycle Collisions Per Year	2.8
Average Bicycle Collision Rate per 1000/year[1]	0.13
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Loma Linda does not participate in safety or education programs specific to non-motorized transportation or the placement of non-motorized transportation facilities. Citizens can bring any safety concerns to the Loma Linda Traffic Advisory Committee (TAC).

City of Montclair

Population

37,535

City Overview

The City of Montclair was originally incorporated as the City of Monte Vista on April 25, 1956. As part of an effort to create its own identity, the City wanted to have its own Post Office. However, because an unincorporated community with a Post Office already existed in Northern California by that name, the U.S. Postal Service would not open another office unless the newly created city changed its name. On April 8, 1958, the voters of the City of Monte Vista chose to change the city's name to the City of Montclair. The City is comprised of 5.4 square miles of incorporated area and 1.1 square miles of unincorporated sphere of influence.

Montclair is bordered by Pomona to the west, Claremont and Upland to the north, Ontario to the east and unincorporated San Bernardino County (near Chino) to the south

Land Use

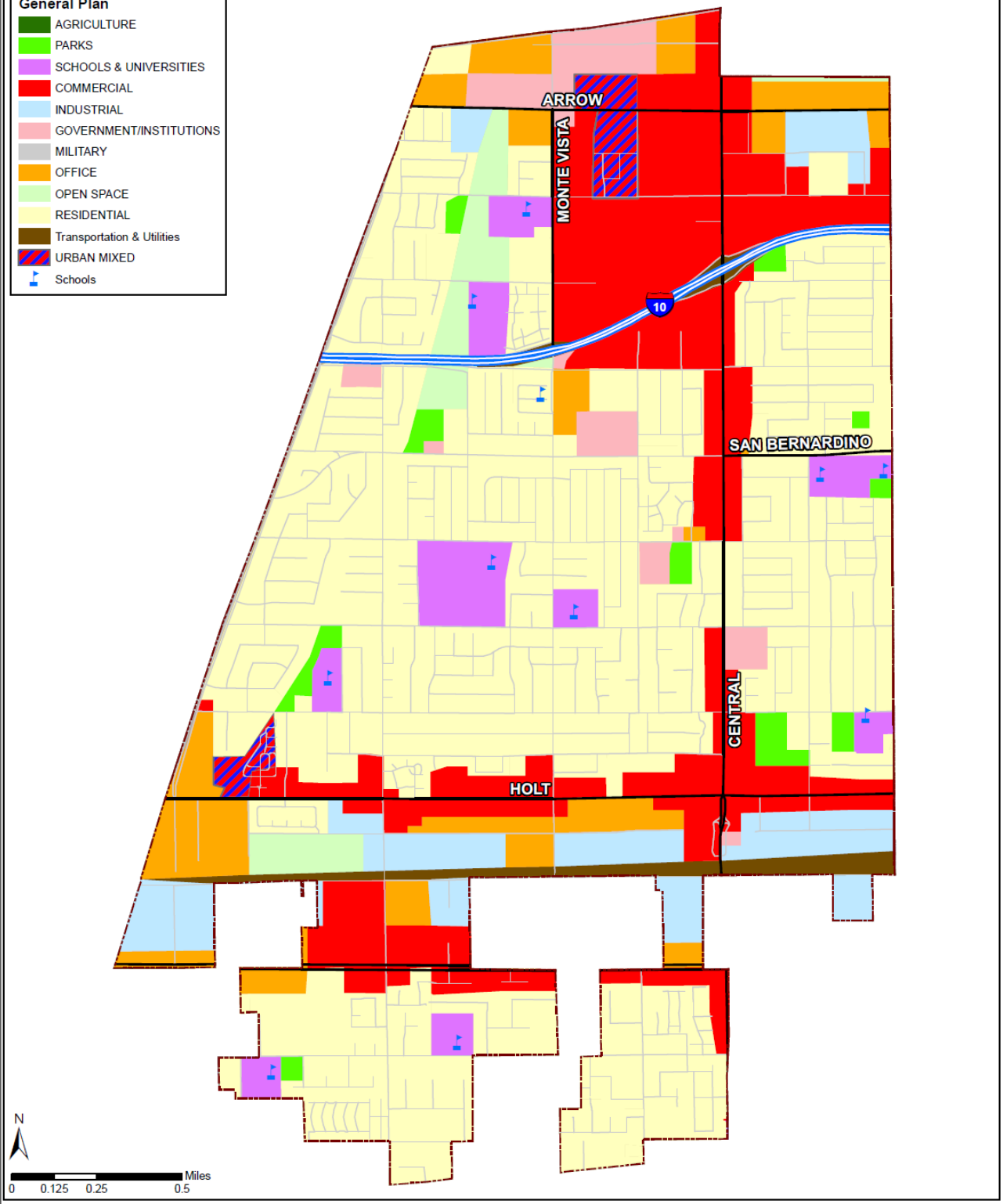
The City of Montclair is largely built out. I-10 bisects the City and most of the land use adjacent to the freeway is commercial or retail oriented. Housing tends to be single-family detached dwelling units located to the south of I-10.

Most of the remaining developable land is located in the northwestern part of the City and covered by the North Montclair Downtown Specific Plan. The proposed land use plan will create new opportunities for a transit-oriented, mixed-use development with a downtown district atmosphere between the Montclair Transcenter (currently a stop on Metrolink's San Bernardino line and eventually a stop on the proposed Metro Gold Line light rail) and the Montclair Plaza regional shopping center.

Existing Conditions:

Montclair's lone existing non-motorized bicycle network is its segment of the Pacific Electric Trail. The Pacific Electric Trail is a Class I facility that extends from the LA County Line on the west to the City of Fontana on the east.

General Plan Land Use
City of Montclair



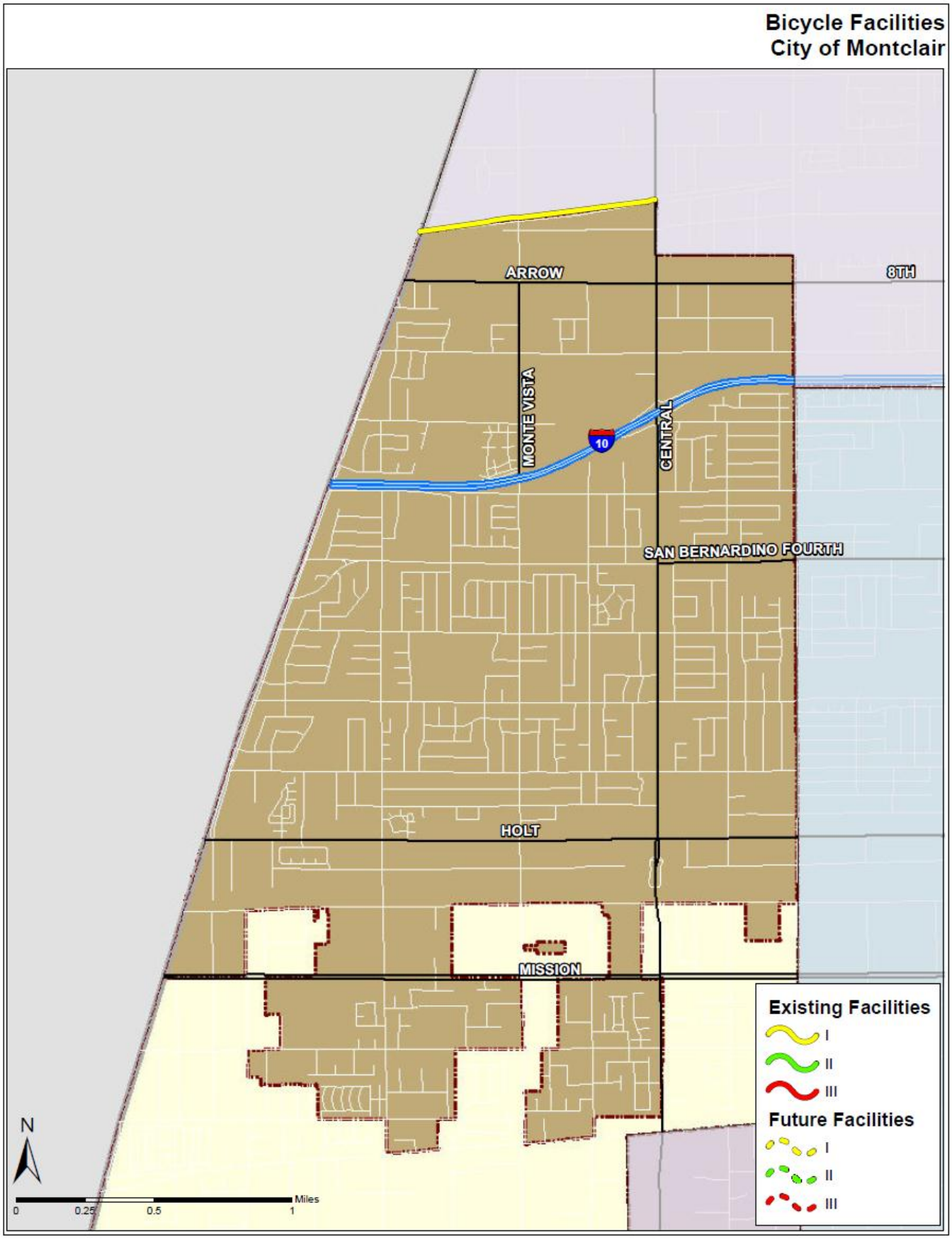

Bicycle Facilities
City of Montclair
ARROW
8TH
MONTE VISTA
CENTRAL
10
SAN BERNARDINO FOURTH
HOLT
MISSION
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
0
0.25
0.5
1
Miles

Table __:

Montclair Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Pacific Electric Trail	Mills Ave	Central Ave	I	0.85	$850,000
			Total	**0.85**	**$850,000**

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Montclair. Based on planning level estimates, the value of the improvements implemented throughout the City is $850,000.

Proposed Improvements

The City of Montclair has not identified any proposed future non-motorized improvements or priority improvements as part of this plan.

Table __:

Montclair Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

Montclair Municipal Code 11.66.020 - General provisions for trip reduction – provides the following requirements related to non-motorized transportation and non-motorized transportation infrastructure:

A. Intent. The purpose of this section is to promote the use of alternative methods of transportation besides use of the single-occupant vehicle. These alternative methods are to be provided in new development so as to meet congestion management and air quality goals at minimal cost and disruption to citizens, business and industry.

B. Applicability. Prior to issuance of a building permit for any new construction project for which a site plan is submitted on or after January 1, 1994, provisions shall be made for all applicable trip reduction requirements of this section to be implemented. The requirements shall not be applied to existing development, except when new square footage is added.

C. Trip Reduction Measures. The following trip reduction measures shall be implemented:

1. Nonresidential Projects.
    a. A bicycle rack or other secure bicycle parking facility shall be provided for every 30 parking spaces within a project and at least one bicycle rack capable of holding three bicycles shall be provided for all projects. Safe and convenient access thereto shall be provided from the public streets.
    b. On-site pedestrian walkways and bicycle facilities shall be provided connecting each building in a development to the public streets.
    c. A passenger loading area in a location close to the main building entrance shall be provided for projects with 100 or more parking spaces. The area devoted to loading and unloading of passengers shall be equivalent to a minimum of five parking spaces.
    d. A minimum of one shower facility accessible to both men and women shall be provided for persons bicycling or walking to work for each project which meets the following thresholds:

Use	Threshold
Commercial	250,000 SF
Office	125,000 SF
Hotels/Motels	250 Rooms
Industrial	325,000 SF

2. Residential Projects.
    a. For multiple dwelling and condominium developments containing 10 or more units:
        i. A bicycle rack or other secure bicycle parking facility shall be provided for every 30 parking spaces. Each project is to include at least one bicycle rack capable of holding three bicycles.
        ii. Sidewalks shall be provided from the public streets to each building within the complex.

End of Trip Facilities

The City of Montclair has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
Montclair Transcenter/Metrolink Station	Train Station/Bus Intermodal Center	Richton Street
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	77
Total # of Bicycle Fatalities from 2005-2009	2
Average # of Bicycle Collisions Per Year	15.4
Average Bicycle Collision Rate per 1000/year[1]	0.43
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Montclair does not currently participate in any bicycle safety or education programs.

City of Needles

Population

5,809

City Overview

The City of Needles is located on the Colorado River at the boarders of California, Arizona and Nevada. The City was founded in 1883 with the coming of the Santa Fe Railroad and the City officially incorporated on October 30, 1913. The City is the eastern-most city in San Bernardino County and received its name from the Needles Mountain range, located east of the City.

Land Use

The geographic area of Needles covers approximately 30 square miles with an average population density of 198 people per square mile. Population for the City has remained fairly constant over the past 100 years. Most of the development within Needles is clustered around Interstate 40, Arizona 95, Needles Highway and Broadway Street.

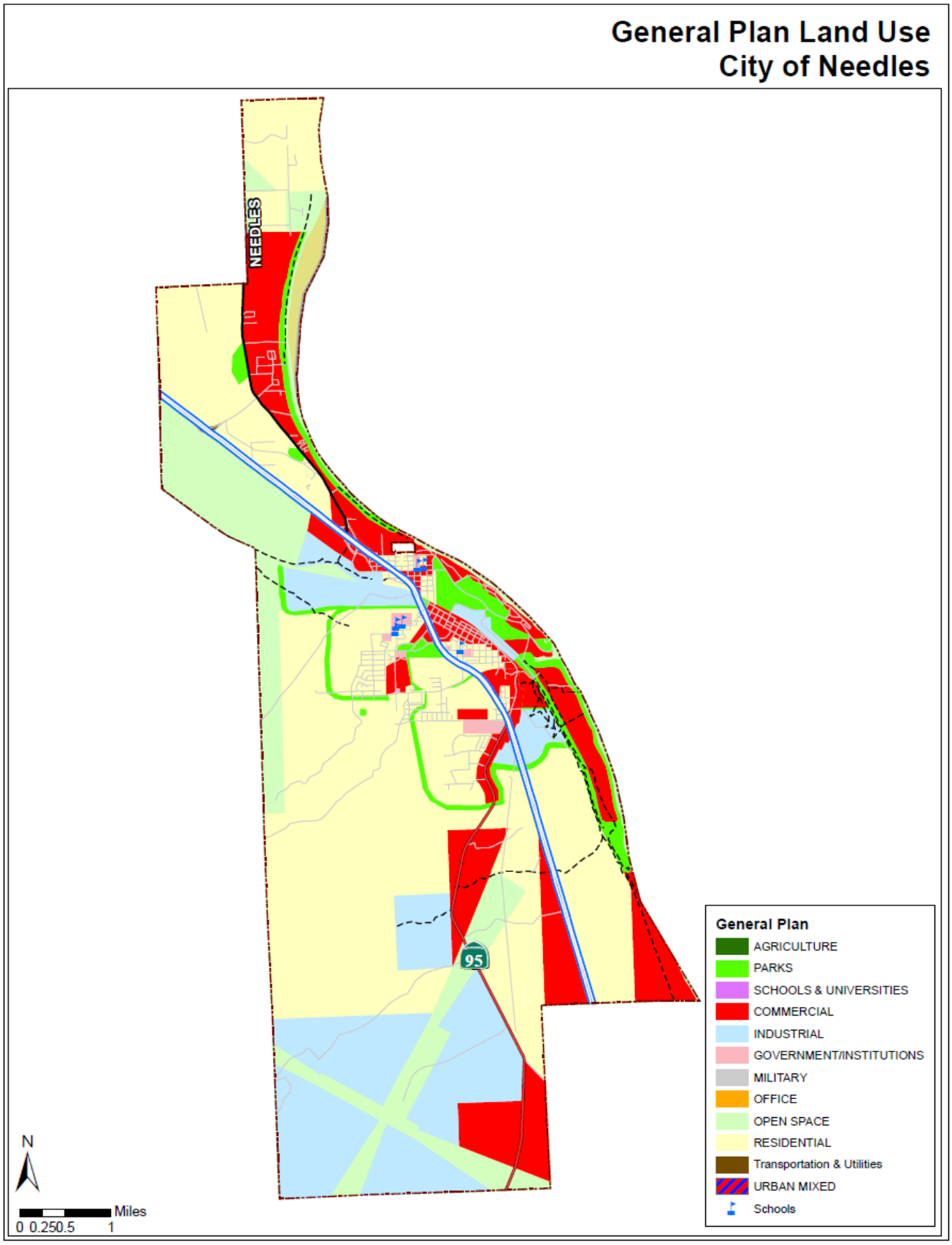
There are a number of recreational opportunities including water-related sports on the Colorado Rivers, hiking the mountain ranges and wilderness areas, and bicycling through the tri-state area. The City of Needles is also home to the Palo Verde Community College and a municipally owned golf course.

Existing Conditions:

There are currently no bicycle facilities in the City of Needles. The City's aging population relies heavily on the use of motorized wheelchairs, travelling side streets to get to the one grocery store in town and other supporting businesses.

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Needles has not constructed any bicycle infrastructure improvements within the City. The existing circulation system is comprised of narrow streets, many without sidewalks, making it difficult to widen streets for non-motorized transportation.


General Plan Land Use
City of Needles
NEEDLES
95
N
Miles
0 0.250.5 1
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

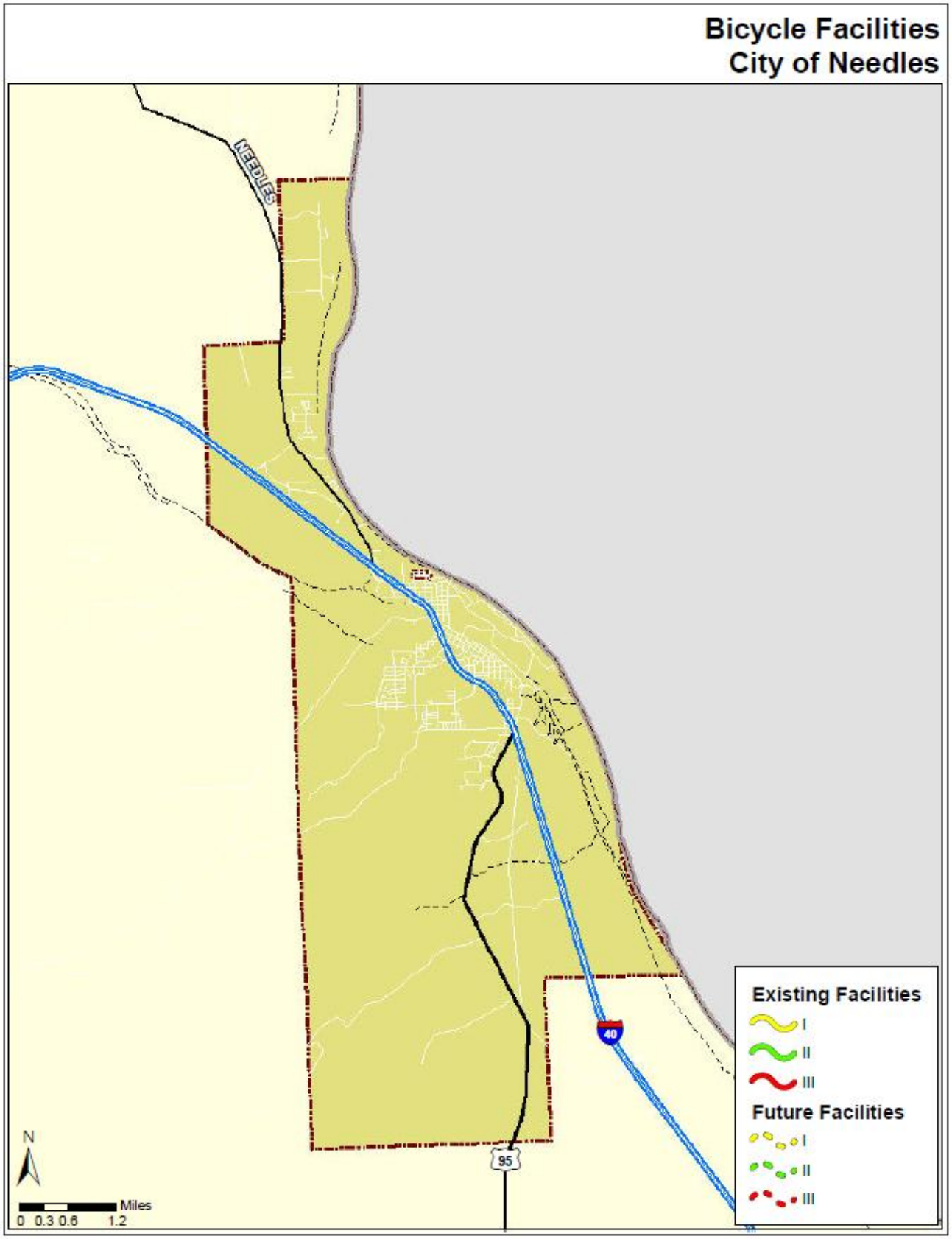

Bicycle Facilities
City of Needles
NEEDLES
40
95
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0 0.3 0.6 1.2

Table __:

Needles Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Proposed Improvements

Table __:

Needles Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

The City of Needles has not identified any proposed future non-motorized improvements.

Municipal Code

The City of Needles is currently reviewing its Municipal Code, as well as its General Plan to incorporate proposed projects such as the San Bernardino County Non-Motorized Transportation Plan into the documents. Currently, the General Plan does not include a circulation element. When funding is available to move forward with revised Municipal Code and a General Plan update, the City intends to revisit the projects listed in this plan.

End of Trip Facilities

The City of Needles has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	2
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	0.4
Average Bicycle Collision Rate per 1000/year[1]	0.07
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Needles does not participate in safety or education programs specific to non-motorized transportation or the placement of non-motorized transportation facilities. However, the City does participate in a more general McGruff safety program, which teaches children to alert municipal employees for assistance when they see the "McGruff" sticker on a utility truck.

City of Ontario

Population

174,536

City Overview

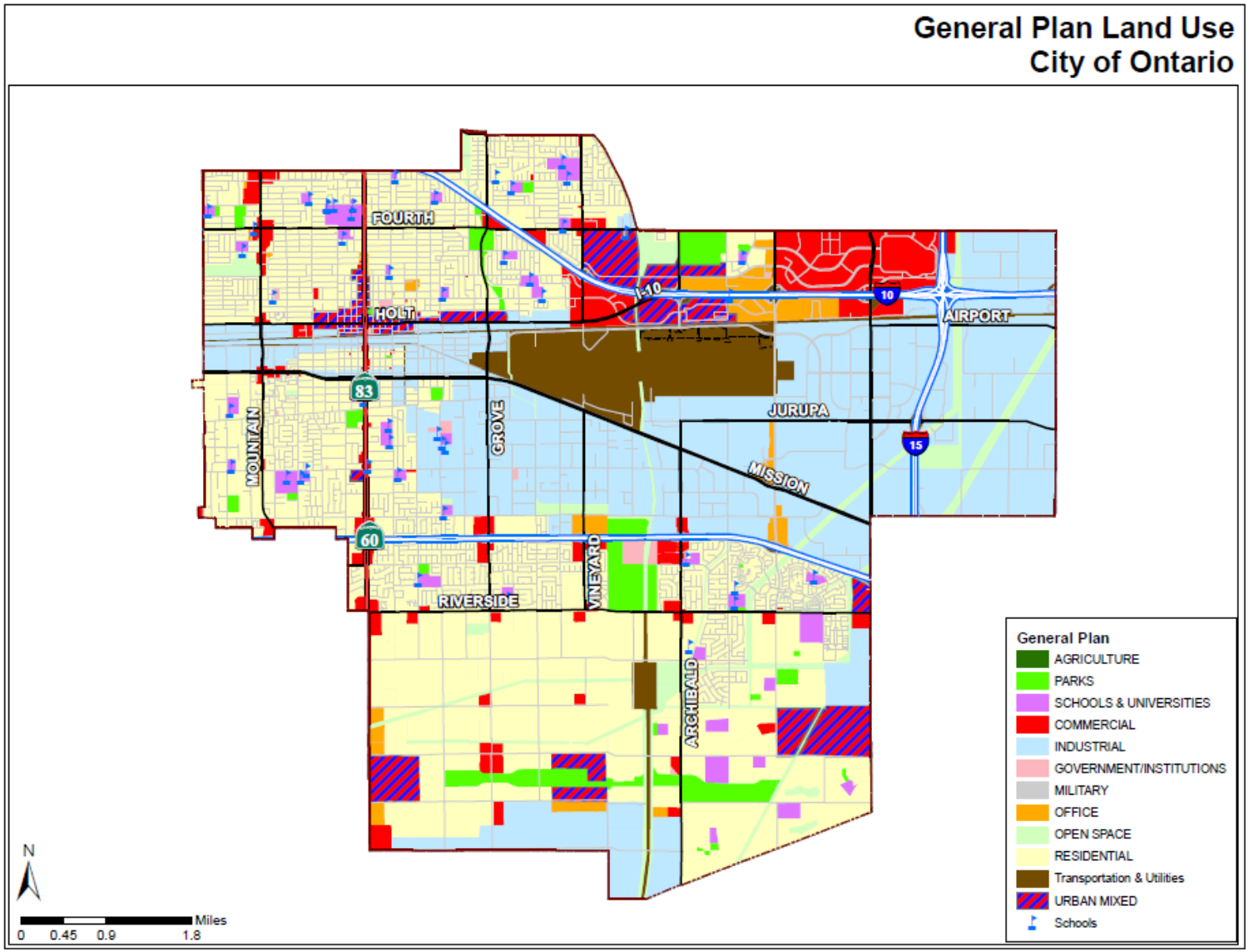
Ontario incorporated as a city in 1891 and now includes 50 square miles of area. Ontario was founded in September of 1882 by George and William B. Chaffey. The city was named after the home of the Chaffey brothers, Ontario, Canada. Ontario had been declared The “Model Colony” as an Act of the Congress of the United States in 1903 for its character and history reflected in its cultural, historical, and architectural heritage. The Model Colony set a new standard for rural communities and remained the classic pattern for irrigation projects for many years.

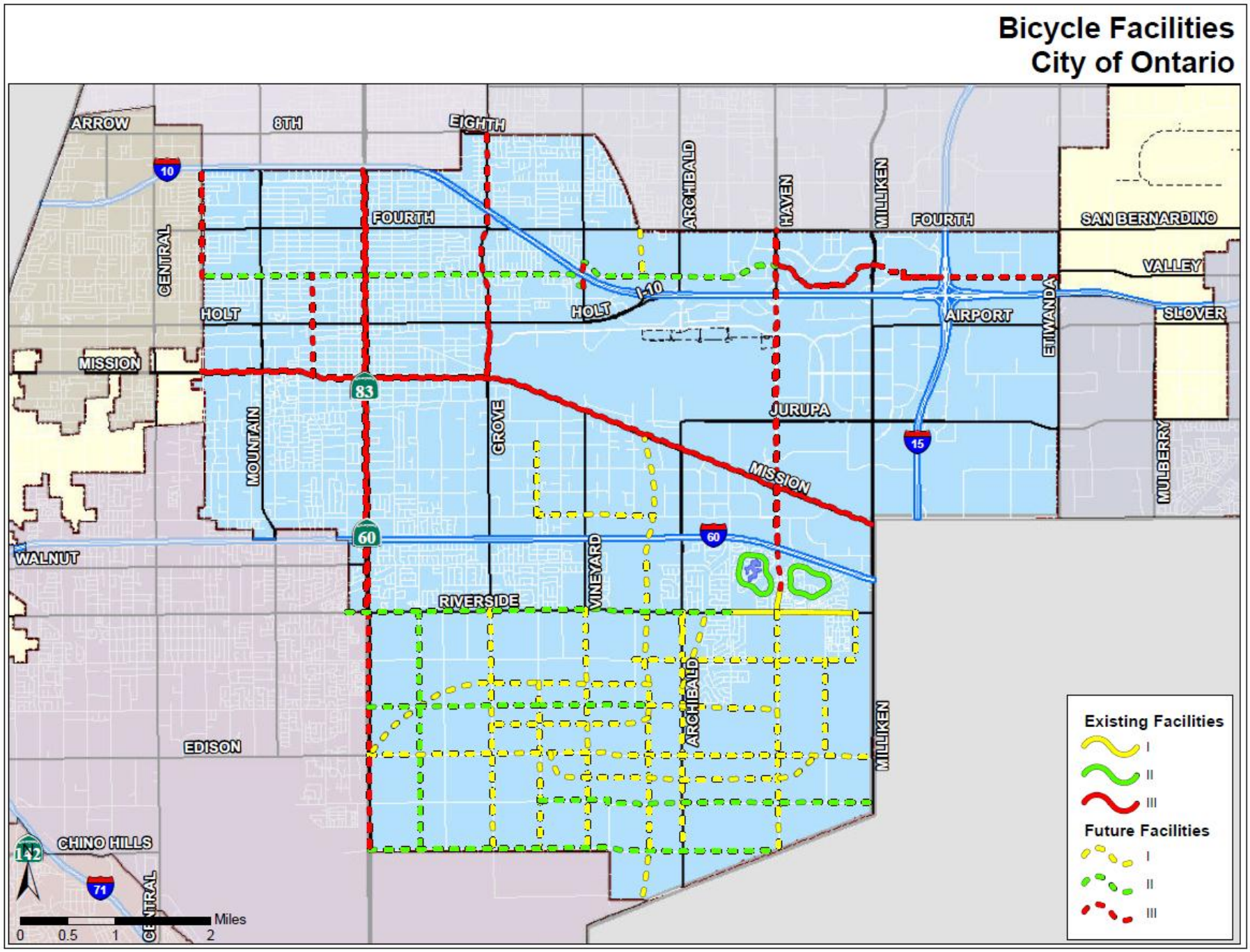
The City of Ontario is located approximately 35 miles east of downtown Los Angeles, 20 miles west of the City San Bernardino, and 30 miles northwest of central Orange County. Ontario is widely viewed as Southern California’s next urban center and is considered the inland region’s population and job growth center.

Ontario is strategically located within a regional transportation network that includes an international airport with passenger and air cargo operations, three freeways, three freight rail lines, commuter and passenger rail services, public transit and a local network of streets and multi-purpose trails. This network provides multi-modal transportation options for those traveling within, to or through the City. This robust system creates unique opportunities for Ontario as a regional jobs hub and a complete community.

Land Use

The Land Use Element of the General Plan provides for uses and development that add value to the community, in terms of function, design and fiscal return. This element guides and regulates land use patterns, densities, and intensities in Ontario.
Subsequently, the mobility system will be coordinated with future land use patterns and levels of build out. Access and connectivity to mobility options will be integrated into neighborhoods, villages and districts. The placement of housing, jobs and amenities in closer proximity to each other and design strategies focused on the pedestrian will make walking a desirable alternative and a connected regional system of multi-purpose trails (including bikeways) will enable safe and convenient non-motorized travel.


General Plan Land Use
City of Ontario
FOURTH
HOLT
I-10
10
AIRPORT
83
MOUNTAIN
GROVE
JURUPA
15
MISSION
60
RIVERSIDE
VINEYARD
ARCHIBALD
N
Miles
0 0.45 0.9 1.8
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools


Bicycle Facilities
City of Ontario
ARROW
8TH
EIGHTH
ARCHIBALD
HAVEN
MILLIKEN
FOURTH
SAN BERNARDINO
VALLEY
CENTRAL
HOLT
I-10
AIRPORT
ETIWANDA
SLOVER
MISSION
MOUNTAIN
GROVE
JURUPA
MULBERRY
WALNUT
VINEYARD
RIVERSIDE
EDISON
CHINO HILLS
10
83
60
15
142
71
Miles
0
0.5
1
2
Existing Facilities
I
II
III
Future Facilities
I
II
III

Existing Conditions:

Class I and II bike lanes currently exist within the Creekside East and Creekside West master planned community which is located just south of the SR 60 Freeway on the east and west sides of Haven Avenue. Class II bike lanes exist on Lytle Creek Loop and Deer Creek Loop roads within the communities. These lanes connect to a Class I bike path on the north side of Riverside Drive between Turner and Milliken Avenues.

Table __:

Ontario Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Deer Creek Loop	Creekside Dr	Creekside Dr	II	1.22	$61,000
Haven Ave	Creekside Ave	Riverside Dr	I	0.24	$240,000
Lytle Creek Loop	Creekside Dr	Creekside Dr	II	1.17	$58,500
Riverside Dr	Turner Ave	Edison Right Of Way	I	1.31	$1,310,000
			Total	**3.94**	**$1,669,500**

Proposed Improvements

Future improvements to the non-motorized network for the City of Ontario will continue along the major transportation corridors throughout the City. Future improvements focus on development of Class I, Class II and Class III facilities. Most future improvements are proposed to be constructed in the New Model Colony, because it is largely currently undeveloped and will require less investment to complete than reconstructing the infrastructure of the older areas of Ontario. All proposed future improvements are included in Table __ below.

When complete, the City will have constructed an additional 106.11 miles of Class I, Class II and Class III, providing internal connectivity to the residents of Ontario and establishing connections to the non-motorized networks of adjacent cities including, Chino, Rancho Cucamonga and Upland. Ontario has identified the priority improvements listed in Table __ below. The facilities are not in any particular order but will be constructed as funds are available, new infill a development occurs or as roadways are widened.

Table __:

Ontario Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Archibald Ave	Riverside Dr	Merrill Ave	I	2.78	$2,780,000
Benson Ave	I-10 Freeway	G Street	III	1.15	$17,250
Campus Ave	Riverside Dr	Merrill Ave	II	2.49	$124,500
Chino Ave	Hellman Ave	SCE ROW	I	2.31	$2,310,000
Cuc. Crk. Channel	Mission Blvd	South City Limit	I	4.92	$4,920,000
Cuc. Crk. Channel	4th St	Inland Empire Blvd	I	0.47	$470,000
Edison Ave	Euclid Ave	Milliken Ave	I	5.29	$5,290,000
Eucalyptus Ave	Walker Ave	Miliken Ave	II	3.54	$177,000
Euclid Ave	I-10 Freeway	Merrill Ave	III	11.75	$176,250
G Street	Benson Ave	Vineyard Ave	II	4.07	$203,500
Great Park	Walker Ave	Mill Creek	I	3.03	$3,030,000
Grove Ave	Riverside Dr	Merrill Ave	I	2.5	$2,500,000
Grove Ave	Eighth St	Mission Blvd	III	3.16	$47,400
Haven Ave	Riverside Dr	Merrill Ave	I	2.5	$2,500,000
Haven Ave	Fourth St	Creekside Dr	III	6.7	$100,500
Inalnd Empire Blvd & Ontario Mills Parkway	Haven Ave	Etiwanda Ave	III	4.93	$73,950
Inland Empire Blvd	Vineyard Ave	Haven Ave	II	2.63	$131,500
Lower Deer Crk. Channel	Riverside Dr	Archibald Ave	I	0.81	$810,000
Merrill Ave	Euclid Ave	Sumner Ave	II	4.3	$215,000
Mill Creek Ave	Chino Ave	Edison Ave	I	1	$1,000,000
Mission Blvd	Benson Ave	Milliken Ave	III	14.65	$219,750
Philadelphia St	W Cuc. Crk Channel	Cucamonga Crk. Channel	I	1.22	$1,220,000
Riverside Dr	West City Limit	Turner Ave	II	4.01	$200,500
San Antonio Ave	G Street	Mission Blvd	III	1.05	$15,750
SCE ROW	Cuc. Crk. Channel	Euclid Ave	I	3.2	$3,200,000
SCE ROW	Grove Ave	Cucamonga Crk. Channel	I	1.65	$1,650,000
SCE ROW	Riveside Dr	Chino Ave	I	0.49	$490,000
Schaefer Ave	Walker Ave	Cucamonga Creek	II	1.15	$57,500
Schaefer Ave	Cucamonga Crk. Channel	Haven Ave	I	1.35	$1,350,000
Schaefer Ave	Euclid Ave	Walker Ave	II	1.78	$89,000
Vineyard Ave	Riverside Dr	Merrill Ave	I	2.5	$2,500,000
Vineyard Ave	Inland Empire Blvd	G Street	III	0.25	$3,750
W. Cuc. Crk. Channel	Mission Blvd	Philadelphia St	I	0.74	$740,000
Walker Ave	Riverside Dr	Merrill Ave	I	1.74	$1,740,000
			Total	**106.11**	**$40,353,100**

Table __:
Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Benson Ave.	I-10 Freeway	G Street	III	1.15	$17,250
Euclid Ave.	I-10 Freeway	Merrill Ave.	III	7.00	$105,000
G Street	Benson Ave.	Vineyard Ave.	II	4.07	$203,500
Grove Ave.	Eighth St.	Mission Blvd.	III	3.17	$47,550
Haven Ave.	Fourth St.	Riverside Dr.	III	7.58	$113,700
Inland Empire Blvd	Vineyard Ave.	Haven Ave.	II	2.63	$131,500
Inland Empire Blvd	Haven Ave.	Etiwanda Ave.	III	4.93	$73,950
Philadelphia St.	W Cuc. Crk Channel	Cuc. Crk. Channel	I	1.23	$1,230,000
San Antonio Ave.	G Street.	Mission Blvd.	III	1.05	$15,750
W. Cuc. Crk. Channel	Eight St	Riverside County Line	I	7.28	$7,280,000
			Total	**40.09**	**$9,218,200**

Municipal Code

Ontario Municipal Code Sec. 9-1.3020 - Bicycle Parking Facilities – provides the following:

Bicycle parking facilities, including bicycle racks, lockers and other secure facilities shall be provided for projects requiring a minimum of thirty (30) parking spaces. This shall include a minimum of one (1) bicycle rack capable of holding three (3) bicycles for each thirty (30) parking spaces.

End of Trip Facilities

The City of Ontario has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
East Ontario Metrolink Station	Train Station	3330 E. Francis St.
Ontario TransCenter	Bus Transfer Station	Sultana/Holt
Ontario Mills TransCenter	Bus Transfer Station	Ontario Mills Outlet Mall
Ontario Airport TransCenter	Bus Transfer Station	Airport Drive
City-wide Bus Stops	Bus Stops	Throughout City
Montecito Church PNR	Park and Ride Lot	2560 S. Archibald Ave.

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	190
Total # of Bicycle Fatalities from 2005-2009	5
Average # of Bicycle Collisions Per Year	38.0
Average Bicycle Collision Rate per 1000/year[1]	0.22
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Ontario does not currently participate in any bicycle safety or education programs.

City of Rancho Cucamonga

Population

177,736

City Overview

Located at the base of the San Gabriel foothills, with majestic views of Cucamonga and Ontario peaks, Rancho Cucamonga is like no other community in the Inland Empire. Rancho Cucamonga's spirit of heritage stems from its history as a collection of three small communities: Cucamonga, Alta Loma, and Etiwanda. The area thrived on the agricultural fruits of citrus and grapes. This history is celebrated today through public art, evocative architecture, and well-preserved historic places. Historic Route 66 (Foothill Boulevard) traces across town, contributing to the nostalgia of the well-known and romanticized highway that still resonates with residents today.

Land Use

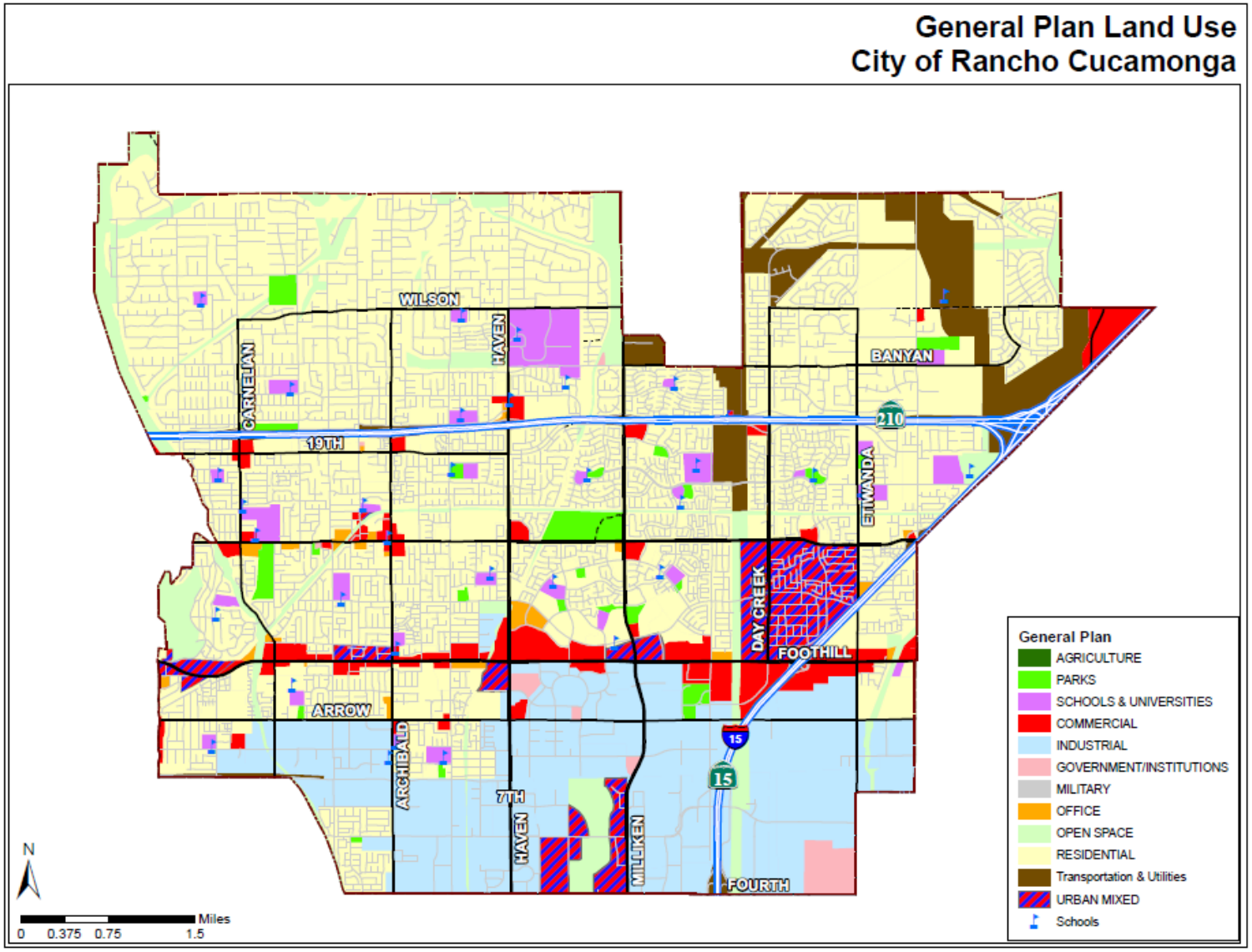
The map on page ___ shows the current and future land use patterns in the City of Rancho Cucamonga. In the past the City has maintained a focus on developing a sustainable balance of residential, commercial and industrial development. Now that the City is 87 percent built-out, the City is focusing its efforts on the best use for remaining infill properties and guiding the redevelopment of aging commercial and industrial properties.

Existing Conditions:

Rancho Cucamonga boats a robust system of bikeways, including numerous Class I, II and III facilities. Portions of four Class I corridors—the Pacific Electric Trail, Cucamonga Creek Channel, Deer Creek Channel and Day Creek Channel—have been constructed for a total of 19.42 miles, transect the city providing a network of right-of-way separated from vehicular traffic and dedicated to non-motorized transportation.

Additionally, 55.43 miles of striped Class II bike lanes have been striped throughout the City. The bike lanes provide connectivity to the Class I facilities and provide access to commercial, residential, educational and recreational amenities throughout the city.

Finally, 44.95 miles of signed Class III facilities, or bike routes, have been designated throughout Rancho Cucamonga. The current Class III facilities tend to be on either lower volume corridors or corridors that are schedule to become Class II facilities in the future as pavement and striping is rehabilitated.


General Plan Land Use
City of Rancho Cucamonga
WILSON
HAVEN
CARNELIAN
19TH
BANYAN
210
ELWANDA
DAY CREEK
FOOTHILL
ARROW
ARCHIBALD
7TH
HAVEN
MILLIKEN
15
FOURTH
N
Miles
0 0.375 0.75 1.5
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

Bicycle Facilities
City of Rancho Cucamonga

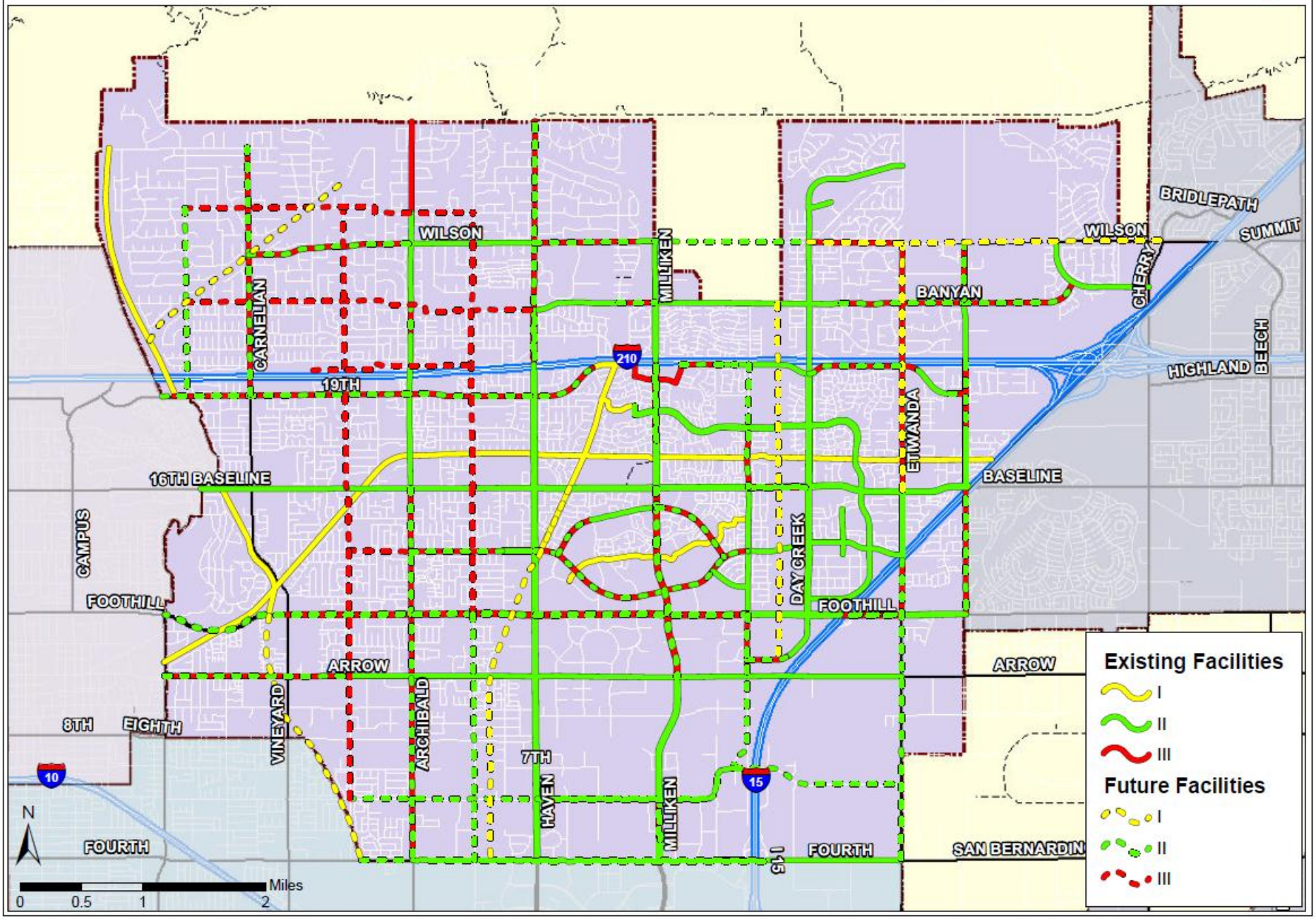


Table __:

Rancho Cucamonga Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
19th St	W City Limit	San Benito Ave	III	3.49	$52,350
4th St (North side only)	Buffalo Ave	I-15 off ramps	III	0.21	$3,150
4th St (North side only)	I-15 off ramps	Etiwanda Ave	II	1.08	$54,000
Alberta Pl	Loyola Ct	Menlo St	I	0.03	$30,000
Arbor Ln	Vinter Dr	Cultural Center Dr	II	0.37	$18,500
Archibald Ave	N City Limit	Hillside Rd	III	0.74	$11,100
Archibald Ave	Lemon Ave	Base Line Rd	II	1.25	$62,500
Archibald Ave	Base Line Rd	4th St	III	3.03	$45,450
Archibald Ave	Hillside Rd	Banyan Ave	II	0.74	$37,000
Archibald Ave	Banyan Ave	Lemon Ave	III	0.24	$3,600
Arrow Route	Grove Ave	Hellman Ave	III	1.5	$22,500
Arrow Route	Hellman Ave	Etiwanda Ave	II	4.5	$225,000
Banyan St	Haven Ave	Fredricksburg Ave	II	0.7	$35,000
Banyan St	Bluegrass Ave	East Ave	III	0.99	$14,850
Banyan St	Fredericksburg Ave	Milliken Ave	III	0.3	$4,500
Banyan St	Milliken Ave	Bluegrass Ave	II	1.51	$75,500
Banyan St	East Ave	Young's Cnyn Rd	III	0.96	$14,400
Base Line Rd	W City Limit	Rochester Ave	II	6.2	$310,000
Base Line Rd	Rochester Ave	Day Creek Blvd	III	0.96	$14,400
Base Line Rd	Day Creek Blvd	I-15	II	2.63	$131,500
Carnelian St	Almond St	19th St	III	2.02	$30,300
Charleston St	Melno St	Fairmont Way	I	0.23	$230,000
Church St	Archibald Ave	Center St	III	0.74	$11,100
Church St	Rochester Ave	Victoria Gardens Ln	II	1	$50,000
Church St	Center St	Haven Ave	II	0.26	$13,000
Church St	Haven Ave	Rochester Ave	III	1.97	$29,550
Coyote Dr	Day Creek Blvd	Duncaster Pl	II	0.18	$9,000
Cucamonga Creek Channel	Almond St	19th St	I	2.14	$2,140,000
Cucamonga Creek Channel	Base Line Rd	Foothill Blvd	I	1.14	$1,140,000
Day Creek Blvd	Etiwanda Ave	2000' s/o Foothill Blvd	II	6.61	$330,500
Day Creek Blvd	2000' s/o Foothill Blvd	Rochester Ave	III	0.35	$5,250
Deer Creek Channel	Fourth St	Highland Ave	I	0.66	$660,000
Deer Creek Channel	Base Line Rd.	Highland Ave	I	1.08	$1,080,000
East Ave	Wilson Ave	Banyan St	III	0.49	$7,350
East Ave	Banyan Ave	SR-210	II	0.46	$23,000
East Ave	SR-210	Victoria St	III	0.56	$8,400
East Ave	Victoria St	I-15	II	0.46	$23,000
East Ave	I-15	Foothill Blvd	III	1	$15,000
Elm Ave Bike Path	Town Center Dr	Rochester Ave	I	1.77	$1,770,000
Etiwanda Ave	Wilson Ave	Base Line Rd	III	2.02	$30,300
Etiwanda Ave	Base Line Rd	250' s/o Church St	II	0.53	$26,500
Etiwanda Ave	250' s/o Church St	Foothill Blvd	III	0.44	$6,600
Fairmont Way	Charleston St	Victoria Park Ln	II	0.06	$3,000

Street/Path	From	To	Class	Mileage	Est. Cost
Fairmont Way	Highland Ave	Kenyon Wy	III	0.09	$1,350
Foothill Blvd	Vineyard Ave	Rochester Ave	III	7.5	$112,500
Foothill Blvd	Rochester Ave	I-15	II	1.5	$75,000
Foothill Blvd	I-15	Etiwanda Ave	III	1	$15,000
Foothill Blvd	Etiwanda Ave	East Ave	II	1.04	$52,000
Haven Ave	SR-210	4th St	II	8.04	$402,000
Haven Ave	N City Limit	SR-210	III	2.39	$35,850
Highland Ave	San Benito Ave	Fairmont Wy	I	0.34	$340,000
Highland Ave	Woodruff Pl	350' w/o Rufino Pl	III	0.31	$4,650
Highland Ave	350' w/o Rufino Pl	Day Creek Blvd	II	0.74	$37,000
Highland Ave	Day Creek Blvd	680' e/o Etiwanda Ave	III	0.9	$13,500
Highland Ave	680' e/o Etiwanda Ave	225' e/o DiCarlo Pl	II	0.33	$16,500
Highland Ave	225' e/o DiCarlo Pl	East Ave	III	0.13	$1,950
Kenyon Wy	Fairmont Wy	Woodruff Pl	III	0.34	$5,100
Loyloa Ct	Deer Creek Channel	Alberta Pl	I	0.05	$50,000
Malaga Dr	Church St	Rochester Ave	II	0.32	$16,000
Miller Ave	Victoria Gardens Ln	I-15	II	0.27	$13,500
Milliken Ave	Wilson Ave	SR-210	II	1.39	$69,500
Milliken Ave	SR-210	Fairmont Wy	III	1.27	$19,050
Milliken Ave	Fairmont Wy	Base Line Rd	II	0.76	$38,000
Milliken Ave	Base Line Rd	Arrow Route	III	3.14	$47,100
Milliken Ave	Arrow Route	6th St	II	2.04	$102,000
Milliken Ave	6th St	450' s/o 5th St	III	0.68	$10,200
Milliken Ave	450' s/o 5th St	4th St	II	0.32	$16,000
Pacific Electric Trail	Grove Ave	I-15	I	7.44	$7,440,000
Rochester Ave	Victoria Park Ln	Base Line Rd	III	0.47	$7,050
Rochester Ave	Base Line Rd	Foothill Blvd	II	1.03	$51,500
Rochester Ave	Foothill Blvd	Arrow Route	III	0.5	$7,500
Terra Vista Pkwy	Church St	Spruce Ave	III	0.41	$6,150
Terra Vista Pkwy	Spruce Ave	Milliken Ave	II	0.53	$26,500
Terra Vista Pkwy	Milliken Ave	Church St	III	0.73	$10,950
Victoria Gardens L	Church St	Day Creek Blvd	II	0.81	$40,500
Victoria Park Ln	Fairmont Way	Church St	II	4.9	$245,000
Wardmand Bullock Rd/Youngs Canyon Rd	Wilson Ave	Cherry Ave	II	1.74	$87,000
Wilson Ave	Carnelian St	Archibald Ave	III	1.33	$19,950
Wilson Ave	High Meadow Pl	Milliken Ave	II	0.13	$6,500
Wilson Ave	Day Creek Blvd	Etiwanda Ave	III	0.76	$11,400
Wilson Ave	Archibald Ave	Haven Ave.	II	1	$50,000
Wilson Ave	Haven Ave	High Meadow Pl	III	0.84	$12,600
Woodruff Pl	Highland Ave	Kenyon Way	III	0.15	$2,250
			Total	**115.26**	**$18,325,750**

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Rancho Cucamonga. Based on planning level estimates, the value of the improvements implemented throughout the City is $18,325,750.

Proposed Improvements

Rancho Cucamonga boasts an extensive network of non-motorized improvements. Future improvements to the non-motorized network continue to build additional connectivity throughout the system. Most future improvements focus on further development of additional Class II facilities, including the upgrade of most existing Class III facilities to Class II standards. However, the City also proposes to construct two additional Class I facilities—along portions of Etiwanda Ave. and Wilson Ave—as well as provide for several new Class III corridors. A table of future improvements is included in Table __ below.

Table __:

Rancho Cucamonga Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
19th St	W. City Limit	San Benito Ave	II	3.59	$179,500
4th St	Cucamonga Channel	I-15 off ramps	II	6.19	$309,500
6th St	Hellman Ave	Etiwanda Ave.	II	6.45	$322,500
Archibald Ave	Banyan Ave	Lemon Ave	II	0.24	$12,000
Archibald Ave	Base Line Rd	4th St	II	3.03	$151,500
Arrow Route	Grove Ave	Hellman Ave	II	1.5	$75,000
Banyan St	Fredericksburg Ave.	Milliken Ave.	II	0.3	$15,000
Banyan St	Bluegrass Ave	East Ave	II	0.99	$49,500
Banyan St	East Ave	Young's Cnyn Rd	II	0.96	$48,000
Banyan St	Sapphire St	Haven Ave	III	2.89	$43,350
Base Line Rd	Rochester Ave	Day Creek Blvd	II	0.96	$48,000
Carnelian St	Almond St	19th St	II	2.02	$101,000
Church St	Archibald Ave	Center St.	II	0.74	$37,000
Church St	Haven Ave	Rochester Ave.	II	1.97	$98,500
Church St	Hellman Ave	Archibald Ave.	III	0.5	$7,500
Cuc. Crk. Channel	4th St	Foothill Blvd	I	2.21	$2,210,000
Day Creek Blvd	2000' s/o Foothill Blvd	Rochester Ave	II	0.35	$17,500
Day Creek Channel	Banyon St	Jack Benny Dr	I	2.9	$2,900,000
Deer Creek Channel	Base Line Rd	4th St	I	3.18	$3,180,000
Demens Channel	Cuc. Creek Channel	n/o Hillside Rd.	I	2.01	$2,010,000
East Ave	Wilson Ave	Banyan St	II	0.49	$24,500
East Ave	SR-210	Victoria St	II	0.53	$26,500
East Ave	I-15	Foothill Blvd	II	0.94	$47,000

Street/Path	From	To	Class	Mileage	Est. Cost
Etiwanda Ave	Wilson Ave	Base Line Rd	I	2.02	$2,020,000
Etiwanda Ave	250' s/o Church St	4th St	II	2.45	$122,500
Foothill Blvd	Grove Ave	Rochester Ave	II	9.61	$480,500
Foothill Blvd	I-15	Etiwanda Ave.	II	0.8	$40,000
Haven Ave	N. City Limit	SR-210	II	2.35	$117,500
Hellman Ave	Hillside Rd	6th St	III	4.83	$72,450
Hermosa Ave	Hillside Rd	Foothill Blvd	III	3.27	$49,050
Hermosa Ave	Foothill Blvd	4th St	II	2	$100,000
Highland Ave	Woodruff Pl	350' w/o Rufino Pl	II	0.44	$22,000
Highland Ave	Day Creek Blvd	680' e/o Etiwanda Ave	II	0.77	$38,500
Highland Ave	225' e/o DiCarlo Pl	East Ave	II	0.13	$6,500
Highland Ave	Beryl St	Hermosa Ave	III	1.33	$19,950
Hillside Rd	Sapphire St	Hermosa Ave	III	2.39	$35,850
Milliken Ave	SR-210	Fairmont Wy	II	1.22	$61,000
Milliken Ave	Base Line Rd	Arrow Route	II	3.12	$156,000
Milliken Ave	6th St	450' s/o 5th St	II	0.66	$33,000
Rochester Ave	Highland Ave	Base Line Rd	II	1	$50,000
Rochester Ave	Foothill Blvd	6th St	II	1.3	$65,000
Sapphire St	Hillside Rd	19th St	II	1.53	$76,500
Terra Vista Pkwy	Church St	Spruce Ave	II	0.41	$20,500
Terra Vista Pkwy	Milliken Ave	Church St	II	0.72	$36,000
Wilson Ave	Carnelian St	Archibald Ave.	II	1.33	$66,500
Wilson Ave	Haven Ave	High Meadow Pl.	II	0.84	$42,000
Wilson Ave	Day Creek Blvd	Cherry Ave	I	2.87	$2,870,000
Wilson Ave	Milliken Ave	Day Creek Blvd	II	1.25	$62,500
			Total	**93.58**	**$18,577,150**

When complete, the City will have constructed an additional 93.58 miles of Class I, II and Class III facilities, providing additional internal connectivity to the residents of Rancho Cucamonga and increased connectivity to communities in the West San Bernardino Valley.

The list of priority improvements for the City of Rancho Cucamonga is located in Table __ below. The priority list includes additional connectivity to and from the Pacific Electric Trail and Day Creek Trail.

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Cost
Pacific Electric Connector	Pacific Electric Trail	Day Creek Channel Trail	I	0.25	$250,000
Pacific Electric Trailhead	Etiwanda Ave.	1,000 ft east	I	0.23	$230,000
Day Creek Trail	Pacific Electric Trail	Highland Ave.	I	0.66	$660,000
			Total	**1.14**	**$1,140,000**

Municipal Code

The City of Rancho Cucamonga municipal code includes the following two provisions governing the provision of non-motorized infrastructure:

Bicycle Storage: Bicycle storage spaces shall be provided in all multi-family residential projects of more than 10 units, commercial, office, and industrial districts in accordance with the following:

- Minimum spaces equal to 5 percent of the required automobile parking spaces or 3 bicycle storage spaces, whichever is greater. After the first 50 bicycle storage spaces are provided, additional storage spaces required are 2.5 percent of the required automobile parking spaces.
- Warehouse distribution uses shall provide bicycle storage spaces at a rate of 2.5 percent of the required automobile parking spaces with a minimum of a 3-bike rack.
- In no case shall the total number of bicycle parking spaces required exceed 100. Where this results in a fraction of 0.5 or greater, the number shall be rounded off to the higher whole number.

Bicycle and Other Two-Wheel Vehicular Facilities.
For developments with at least 40 total parking spaces, required on-site parking may be reduced at a rate of 1 automobile parking space per 4 spaces of bicycle storage, up to 50 automobile parking spaces or 10 percent of the total required on-site parking, whichever is less, where locker rooms and showers are provided for employees to promote bicycle commuting.

The standard related to Bicycle and other Two-Wheel Vehicular Facilities only applies to Industrial Districts, and is aimed at promoting bicycle commuting where locker rooms and showers are provided.

End of Trip Facilities

The City of Rancho Cucamonga has bike lockers at the Rancho Cucamonga Metrolink Station and bike racks dispersed throughout the City.

Multimodal Connectivity

The City of Rancho Cucamonga has the following multimodal facilities that interface with the non-motorized transportation system.

Facility	Facility Type	Facility Location
Rancho Cuc. Metrolink Station	Train Station	11208 Azusa Court
City-wide Bus Stops	Bus Stops	Throughout City
Base Line PNR Lot	Ride Share Lot	13231 Baseline Rd.
Highland Ave Church PNR Lot	Ride Share Lot	9944 Highland Ave.

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	91
Total # of Bicycle Fatalities from 2005-2009	3
Average # of Bicycle Collisions Per Year	18.2
Average Bicycle Collision Rate per 1000/year[1]	0.11
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Rancho Cucamonga does not currently participate in any bicycle safety or education programs.

City of Redlands

Population

71,926

City Overview

The City of Redlands was incorporated in November 1888 and comprises an area of approximately 37.5 square miles in the East San Bernardino Valley. The early migration to Redlands as a wintering place for well to do Midwestern and Easterners, created a rich diversity in architecture. The City continues to be a beautiful community, composed of historic Victorian, California Craftsman, Classic Revival, and Mission Revival style homes.

At the heart of the City, and framed by the San Bernardino Mountains, the University of Redlands contains a number of classic buildings and is connected by tree-lined greens. Additionally, the City is home to ESRI Corporation which is a leader in Geographic Information Systems (GIS) technology.

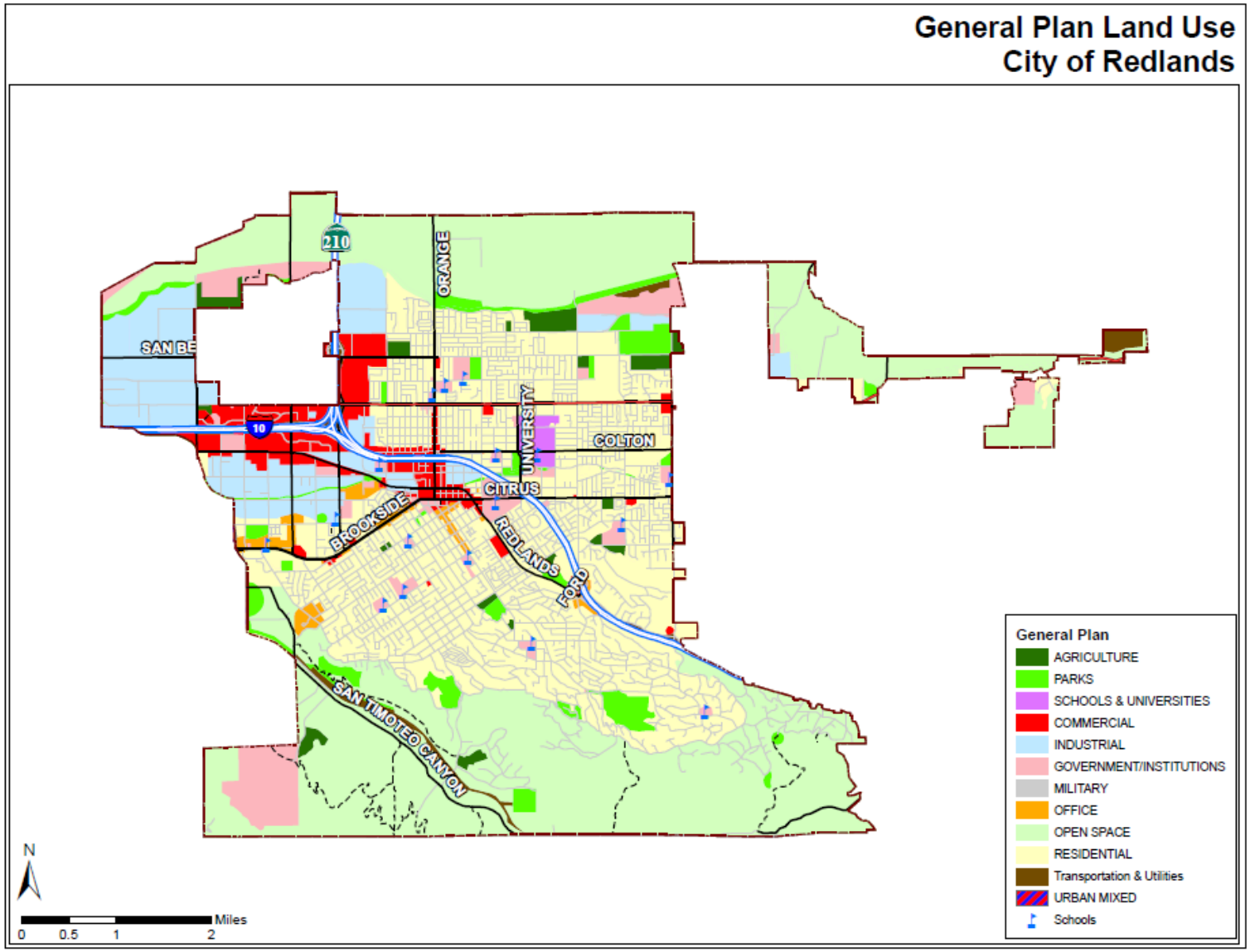
Land Use

The City's General Plan Grown Management Element establishes limitations on future development and land use. This grew out of the first growth management voter initiative; Proposition R, which was first passed by Redlands voters in 1978. Proposition R was later amended by Measure N (a zoning ordinance) in 1987. This policy restricts the development of residential dwelling units to 400 units a year within the city, and the extension of utilities to 150 units per year outside of the existing city limits (within the Sphere of Influence, and therefore in the County of San Bernardino's jurisdiction.

Measure U, adopted by voters in 1997, further articulated growth management policies. This General Plan Amendment reinforced and modified certain provisions of Measure N, adopted Principles of Managed Growth, and reduced the development density of San Timoteo and Live Oak canyons by creating a new land use category: Resource Preservation. Under Measure U, no land designated by the General Plan as Urban Reserve as of June 1, 1987, is to be re-designated for a higher density than RE designation unless specified findings are made by a four-fifths vote of the City Council.

Existing Conditions:

There are several segments on non-contiguous portions of the Orange Blossom Trail totaling 0.35 miles constructed.


General Plan Land Use
City of Redlands
210
10
ORANGE
UNIVERSITY
COLTON
CITRUS
BROOKSIDE
REDLANDS
LOMA
SAN TIMOTEO CANYON
N
Miles
0
0.5
1
2
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

Bicycle Facilities
City of Redlands

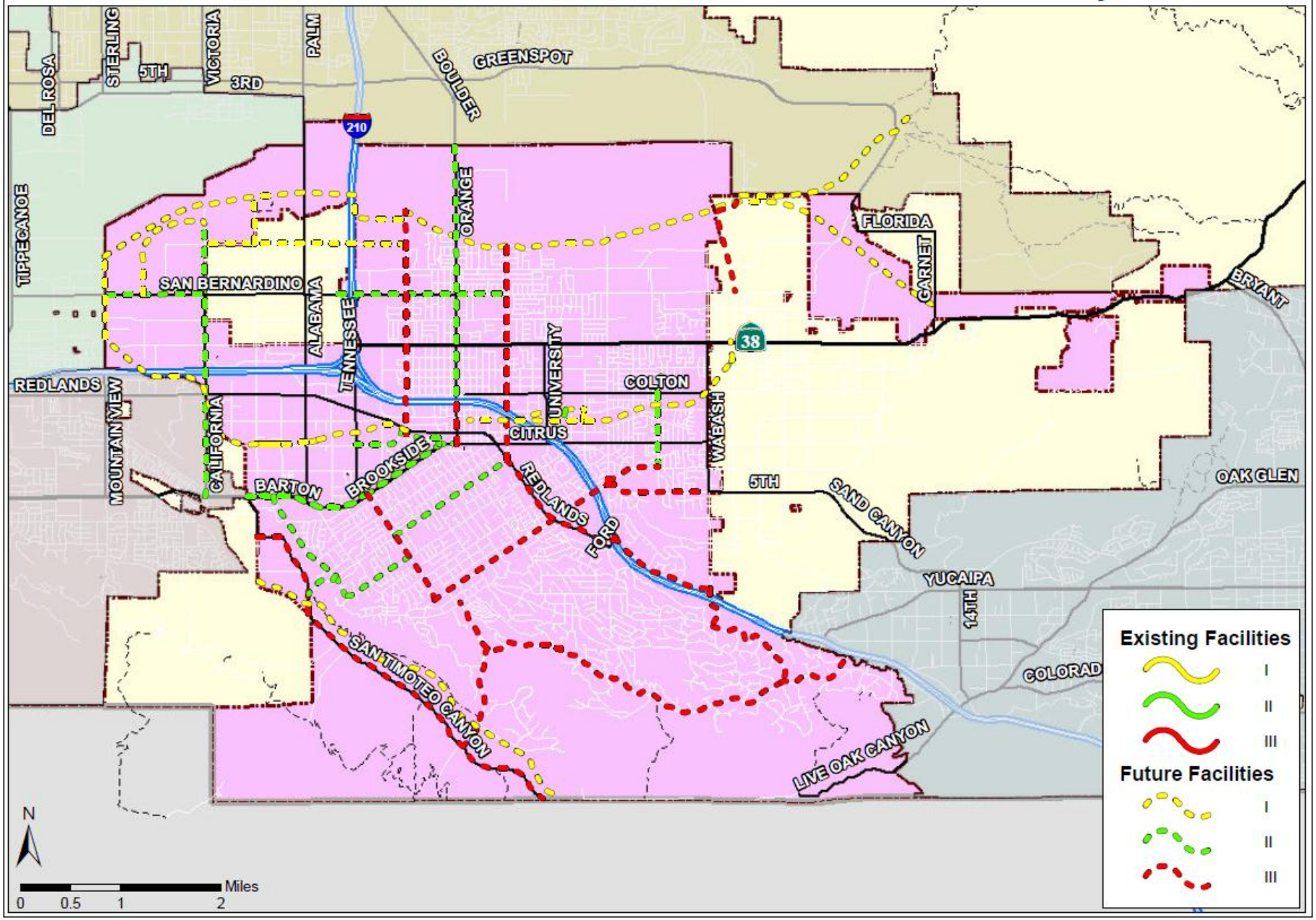


Table __:

Redlands Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Orange Blossom Trail	Nevada St	Iowa St	I	0.24	$240,000
Orange Blossom Trail	Alabama St	0.12m e/o Alabama St	I	0.11	$110,000
			Total	**0.35**	**$350,000**

Table __:

Redlands Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
5th Ave	Ford St	Wabash Ave	III	1.01	$15,150
Alessandro Rd	Crescent Ave	San Timoteo Canyon Rd	III	1.61	$24,150
Alta Vista Dr	Outer Highway 10	Sunset Dr	III	0.84	$12,600
Barton Rd	San Timoteo Cnyn Rd	San Mateo Rd	II	2.47	$123,500
Brookside Ave	San Mateo Rd	Orange St	II	2.09	$104,500
California St	Mill St	Barton Rd	II	2.72	$136,000
Center St	Orange Blossom Trail	State St	III	0.03	$450
Church St	Santa Ana River Trail	Redlands Blvd	III	2.14	$32,100
Cypress Ave	Smiley Heights Dr	San Mateo Rd	II	0.73	$36,500
Dearborn St	Brockton Ave	Highland Ave	II	1	$50,000
East Valley Corridor Multi-Purpose Trail	San Bernardino Ave	California St	I	1.23	$1,230,000
Eureka St	State St	Brookside Ave	II	0.06	$3,000
EW East Valley Corridor Bikeway	California St	Texas St	I	2	$2,000,000
Fern Ave	San Mateo Rd	Church St	II	1.34	$67,000
Fern Ave	San Timoteo Canyon Rd	Terracina Blvd	II	0.37	$18,500
Ford St	Highland Ave	5th St	III	0.05	$750
Ford St	Reservoir Rd	Redlands Blvd	III	0.11	$1,650
Grove St	Zanja Creek Trail	Orange Blossom Trail	I	0.11	$110,000
Highland Ave	San Mateo Rd	Ford St	III	2.08	$31,200
Highland Ave	Ford St	Dearborn St	III	0.53	$7,950

Street/Path	From	To	Class	Mileage	Est. Cost
NS East Valley Corridor Bikeway	Santa Ana River Trail	EW East Valley Corridor Bikeway	I	0.46	$460,000
Opal Ave	Santa Ana River Trail	San Bernardino Ave	III	1.04	$15,600
Orange Blossom Trail	Iowa St	Alabama St	I	0.25	$250,000
Orange Blossom Trail	0.12m e/o Alabama St	Opal Ave	I	0.92	$920,000
Orange Blossom Trail	Mountain View	Nevada St	I	5.92	$5,920,000
Orange St	N. City Limit	Colton Ave	II	2.49	$124,500
Orange St	Colton Ave	Citrus Ave	III	0.5	$7,500
Redlands Blvd	Fern Ave	Ford St	III	1.37	$20,550
Reservoir Rd	Ford St	Wabash Ave	III	1.11	$16,650
San Bernardino Ave (less hole)	Mountain View	Church St	II	2.67	$133,500
San Mateo St	Brookside Ave	Highland Ave	III	1.25	$18,750
San Timoteo Canyon Rd	Barton Rd	Live Oak Rd	III	4.17	$62,550
San Timoteo Creek Trail	Beaumont Ave	S. City Limit	I	3.87	$3,870,000
Santa Ana River Trail	Mountain View	Greenspot Rd	I	11.36	$11,360,000
State St	Texas St	Eureka St	II	0.32	$16,000
State St.	Tennessee St	Eureka St	II	0.55	$27,500
Sunset Dr N	Golden West Dr	Alta Vista Dr	III	1.15	$17,250
Sunset Dr S	Alessandro Rd	Alta Vista Dr	III	3.41	$51,150
Terracina Blvd	Barton Rd	Smiley Heights Dr	II	1.26	$63,000
Texas St	Santa Ana River Trail	South of Stuart Ave	III	2.08	$31,200
Wabash Ave	Reservoir Rd	Sundset Dr	III	0.43	$6,450
Zanja Creek Trail	Orange Blossom Trail	Grove St	I	0.69	$690,000
Zanja/Orange Connect	Zanja Creek Trail	Orange Blossom Trail	II	0.1	$5,000
			Total	**69.89**	**$28,092,150**

Proposed Improvements

Future improvements to the non-motorized network for the City of Redlands will create a grid of non-motorized infrastructure. Additionally, a significant investment in Class I Bikeways will provide a number of access controlled, higher speed corridors for citizens and bike commuters in the City. Future improvements focus on a balanced approach to the development of Class I, Class II and Class III facilities. All proposed future improvements are included in Table __ above.

The priority for the City of Redlands is completion of the Orange Blossom Trail. This non-trail will serve as a critical component of the City's non-motorized trail system. When the entire system is completed, the City will have constructed an additional 70.48 miles of Class I, Class II and Class III, providing internal connectivity to the residents of Redlands and establishing connections to the non-motorized networks of adjacent cities including, Highland and Loma Linda and the County of San Bernardino.

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Orange Blossom Trail	Mountain View	Opal Ave.	I	7.47	$7,470,000
			Total	**7.47**	**$7,470,000**

Municipal Code

The City of Redlands has not adopted Municipal Code specific to non-motorized transportation or the placement of non-motorized transportation facilities.

End of Trip Facilities

The City of Redlands has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	95
Total # of Bicycle Fatalities from 2005-2009	2
Average # of Bicycle Collisions Per Year	19.0
Average Bicycle Collision Rate per 1000/year[1]	0.27
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Redlands Police Department participates in an annual community bicycle giveaway program that includes providing training on bicycle safety, providing bicycle helmets and safety gear and bicycles to needy families within the City.

City of Rialto

Population

100,260

City Overview

The City of Rialto is located in the central San Bernardino Valley. The City shares its boundaries with the cities of Colton, Fontana and San Bernardino as well an unincorporated areas of Riverside and San Bernardino counties. The City is four miles wide and 8.5 mile long and comprises an incorporated area of 28 square miles.

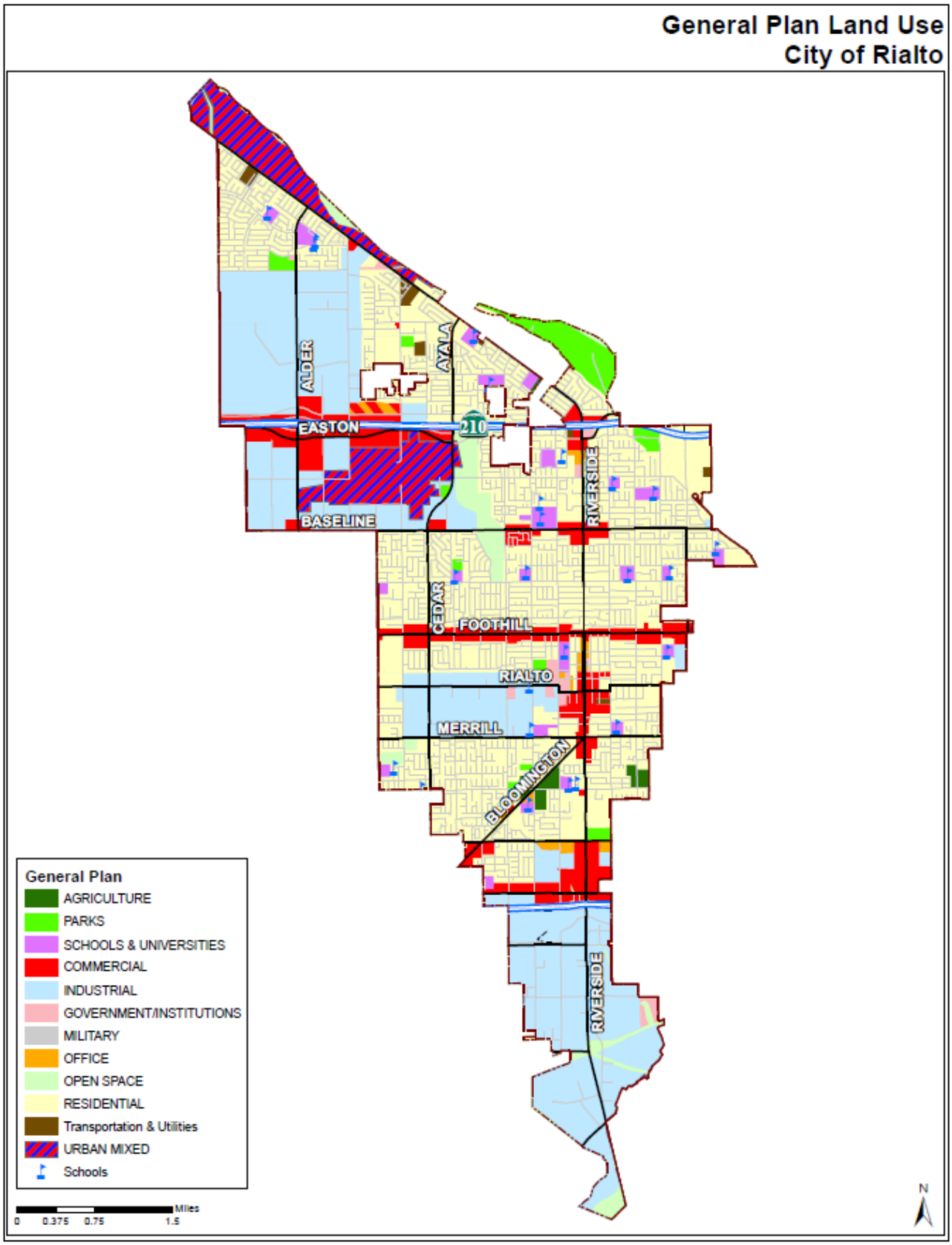
Land Use

Rialto's land use pattern is defined by nearly 100 years of historical growth. The historic downtown and surrounding older neighborhoods, with smaller residential lots and small central business district provide a walkable urban core. Suburban tract homes from the 1950s and 1960s, away from downtown, have defined much of the City. Newer residential neighborhoods have filled the northern areas.

Commercial uses are focused along Foothill Boulevard, Riverside Avenue, Valley Boulevard and Baseline Road. These corridors and intersections, along with downtown, constitute the City's major commercial areas.

Existing Conditions:

Rialto has experienced growth in its non-motorized bicycle network since the last update to the Non-Motorized Transportation Plan. The City has completed a number of Class II improvements in the northern area of the City and it has built a 1.5 mile segment of Class I facility along Cactus Ave. In total, the City has 1.5 miles of Class I and 10.4 miles of Class II


General Plan Land Use
City of Rialto
ALDER
AYALA
EASTON
210
BASELINE
RIVERSIDE
CEDAR
FOOTHILL
RIALTO
MERRILL
BLOOMINGTON
RIVERSIDE
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
Miles
0
0.375
0.75
1.5
N

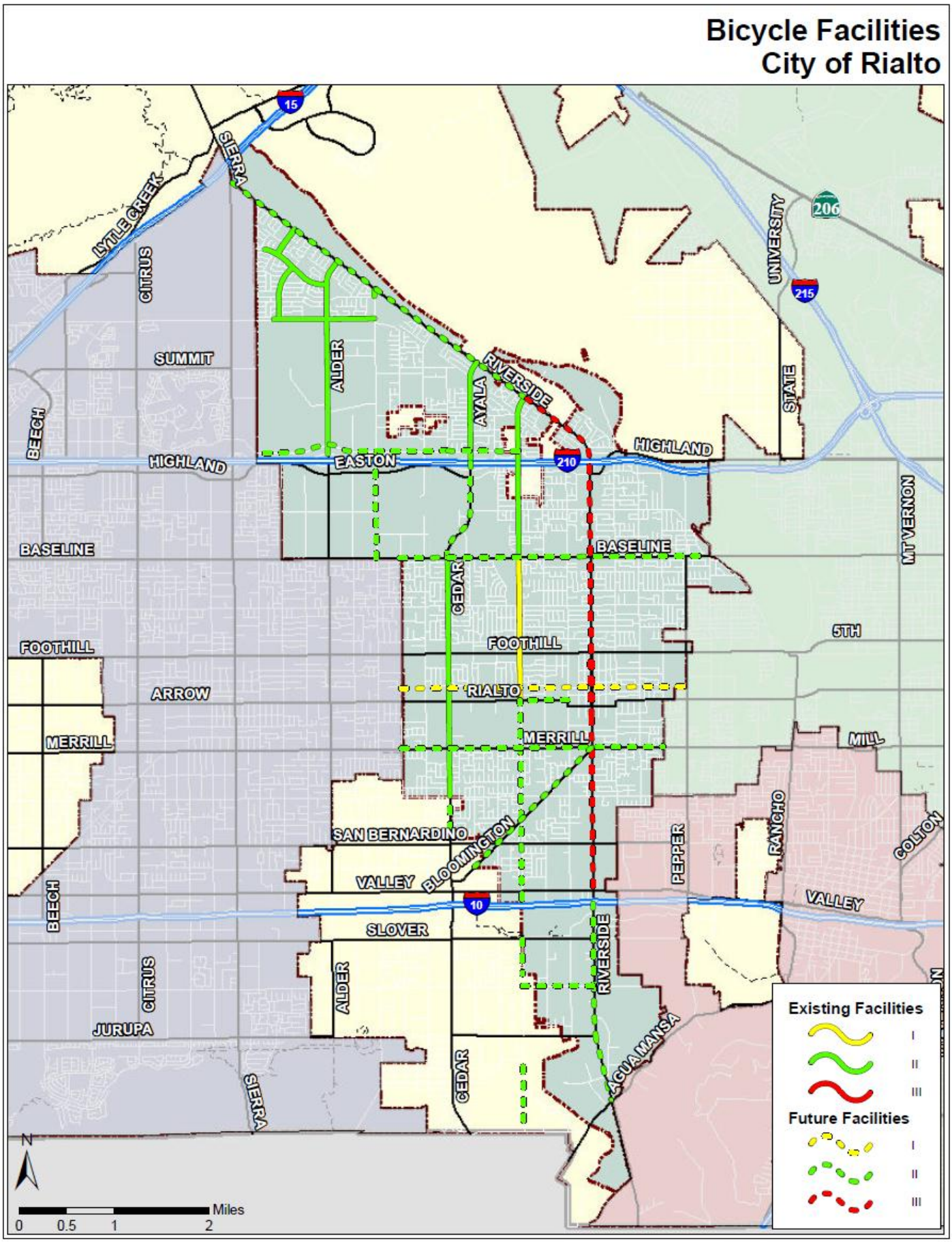

Bicycle Facilities
City of Rialto
15
SIERRA
LYTLE CREEK
CITRUS
SUMMIT
BEECH
HIGHLAND
ALDER
AYALA
RIVERSIDE
EASTON
210
HIGHLAND
UNIVERSITY
206
215
STATE
MT VERNON
BASELINE
BASELINE
CEDAR
FOOTHILL
FOOTHILL
5TH
ARROW
RIALTO
MERRILL
MERRILL
MILL
SAN BERNARDINO
BLOOMINGTON
PEPPER
RANCHO
COLTON
VALLEY
VALLEY
10
BEECH
SLOVER
CITRUS
ALDER
RIVERSIDE
JURUPA
AGUA MANSA
CEDAR
SIERRA
N
0
0.5
1
2
Miles
Existing Facilities
I
II
III
Future Facilities
I
II
III

Table __:
Rialto Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Alder Ave	SR-210	Casa Grande Dr	II	2.05	$102,500
Ayala Dr	Riverside Ave	SR-210	II	1.05	$52,500
Cactus Ave	Baseline Ave	Bonhart Ave	II	1.5	$75,000
Cactus Ave	Base Line Rd	Rialto Ave	I	1.5	$1,500,000
Casa Grande Dr	Ponderosa Ave	Locust Ave	II	1.05	$52,500
Cedar Ave	Base Line Rd	Randall Ave	II	2.5	$125,000
Country Club Dr	Riverside Ave	Bohnert Ave	II	0.19	$9,500
Live Oak Ave	Riverside Ave	Terra Vista Dr	II	0.64	$32,000
Locust Ave	Riverside Ave	Buena Vista Dr	II	0.07	$3,500
Palmetto Ave	Terra Vista Dr	Casa Grande Dr	II	0.59	$29,500
Terra Vista Dr	Dove Tree Ave	Alder Ave	II	0.76	$38,000
			Total	**11.9**	**$2,020,000**

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Rialto. Based on planning level estimates, the value of the improvements implemented throughout the City is $2,020,000.

Table __:

Rialto Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Ayala Dr	I 210	Baseline Rd	II	1.09	$54,500
Baseline Rd	Maple	E City Limit	II	3.25	$162,500
Bloomington Ave	Larch St	Riverside Ave	II	1.76	$88,000
Cactus Ave	Rialto Ave	Manila St	II	3.16	$158,000
Casmalia Ave	Mango Ave	Cedar Ave	II	2.03	$101,500
Casmalia Ave	Cedar Ave	Cactus Ave	II	0.75	$37,500
Cedar Ave	Sequoia Ave	S of Miramont St	II	0.31	$15,500
Locust Ave	Casmalia Ave	Baseline Rd	II	1.12	$56,000
Merrill Ave	Maple Ave	Eucalyptus Ave	II	2.75	$137,500
Pacific Electric Trail	Maple	Pepper	I	3	$3,000,000
Rialto Ave	Cactus Ave	Willow Ave	II	0.5	$25,000
Riverside Ave	Sierra Ave	Cactus Ave	II	3.85	$192,500
Riverside Ave	Cactus Ave	I-10	III	6.24	$93,600
Riverside Dr	I-10	Agua Mansa	II	2.08	$104,000
Santa Ana Ave	Cactus Ave	Riverside Ave	II	0.75	$37,500
			Total	**32.64**	**$4,263,600**

Table __:
Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Proposed Improvements

Future improvements to the non-motorized network for the City of Rialto will continue along the major transportation corridors throughout the City. Most of the City's future improvements focus on additional Class II facilities, but some new Class I and Class III facilities are proposed. The marquee future improvement is the eastern extension of the Pacific Electric Trail through the City. A table of future improvements is included in Table __ above.

At this time the Rialto does not have a priority list of improvements. When complete, however, the City will have constructed an additional ___ miles of Class I, II and III, providing a significant upgrade to the density and connectivity of the bicycle network in the City.

Municipal Code

Rialto Municipal Code 18.59.030 - Design standards - provides the following requirements related to pedestrian access and circulation:

The following design standards shall be incorporated into the precise plan of design approval process for all new and revised nonresidential and multifamily developments of ten or more units, except as specifically provided below:

A. Bicycle parking facilities to include bicycle racks and/or secured bicycle lockers shall be provided at a rate of one bicycle space per thirty parking spaces with a minimum requirement of three bicycle spaces.

B. On-site pedestrian walkways and bicycle facilities shall be provided connecting each building in a development to public streets.

C. A minimum of one shower facility accessible to both men and women shall be provided for persons bicycling or walking to work for all new nonresidential development meeting the city's adopted congestion management plan (CMP) thresholds of two hundred fifty or more peak hour trips.

J. The city will participate in the implementation of the adopted countywide bicycle plan to conform with Southern California Associated Governments (SCAG) Regional Mobility Element.

K. Sidewalks shall be installed or widened when possible, as approved by the city engineer, to accommodate pedestrians

End of Trip Facilities

The City of Rialto has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes and at the Metrolink Station.

Multimodal Connectivity

Table __:

Multimodal Connections

Facility	Facility Type	Facility Location
Rialto Metrolink Station	Train Station	Riverside Dr.
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	67
Total # of Bicycle Fatalities from 2005-2009	4
Average # of Bicycle Collisions Per Year	13.4
Average Bicycle Collision Rate per 1000/year[1]	0.14
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Rialto does not currently participate in any bicycle safety or education programs.

City of San Bernardino

Population

204,800

City Overview

The City of San Bernardino is the largest City and the county seat of San Bernardino County, California. The City encompasses approximately 81 square miles at the heart of the central San Bernardino Valley. The City also serves as the gateway to the High Desert and Mountains areas of the County.

Land Use

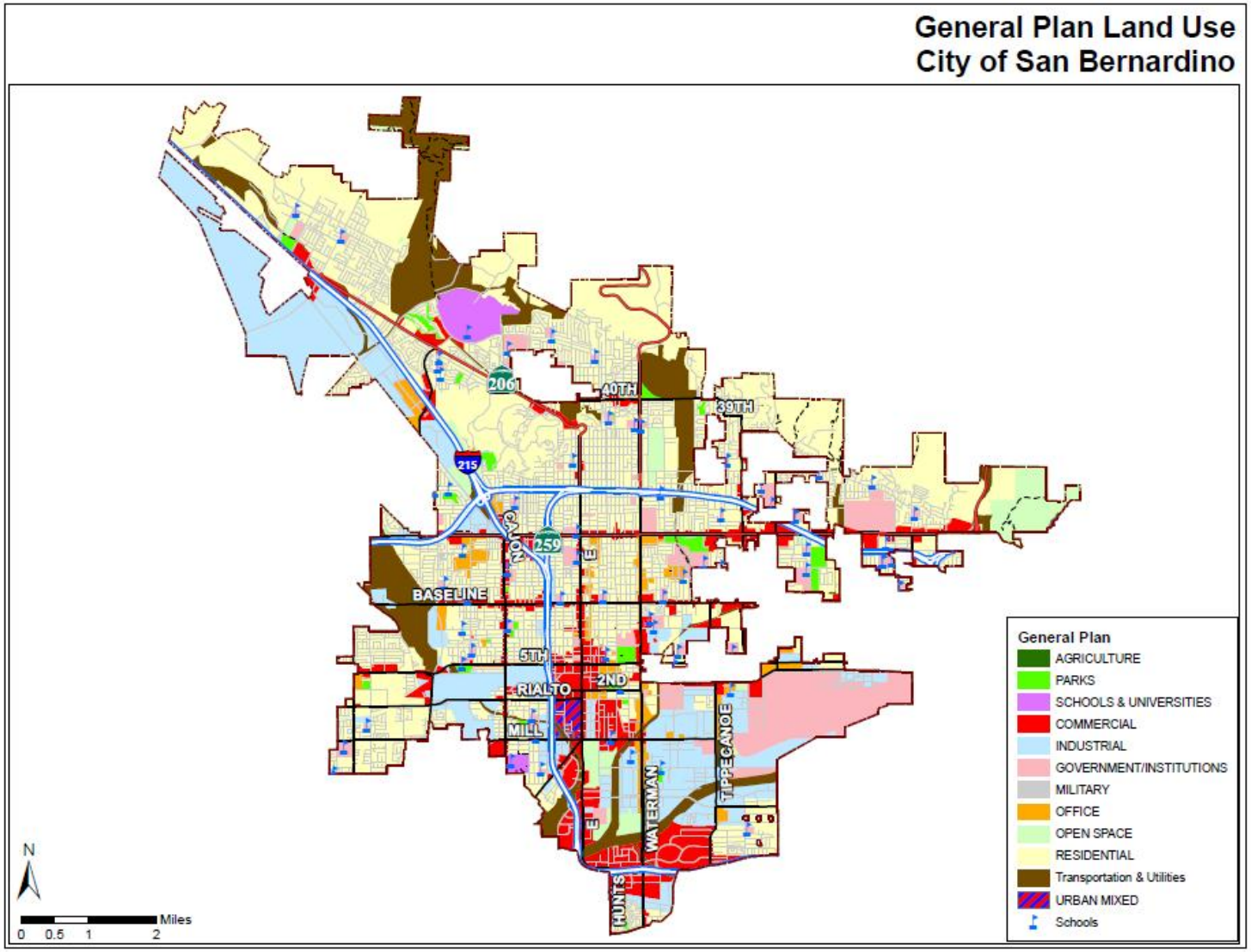
The City's housing stock is on average older than most of the rest of the San Bernardino Valley. However, a significant amount of new housing has been added to the northwest area of the City known as Verdemont. Most of the City's housing stock is clustered around I-215 and SR-210, while commercial and industry tends to be located south of Highland Avenue.

San Bernardino is one of the employment hubs for San Bernardino County, as it is one of the few San Bernardino County cities with a downtown. The government sector is the single largest employment sector for the city, with the City of San Bernardino, County of San Bernardino, Caltrans, Omnitrans, California State University, and the San Bernardino City School District among the city's largest employers. The City is also home to the Burlington Northern Santa Fe (BNSF) intermodal railyard and the former Norton Air Force Base, which is currently being redeveloped as the San Bernardino International Airport.

Existing Conditions:

The City of San Bernardino has experienced growth in its non-motorized bicycle network since the last update to the Non-Motorized Transportation Plan. The City has completed one segment of the Santa Ana River Trail, a Class I trail that will ultimately connect the San Bernardino Mountains to the Pacific Ocean.

The City has also constructed a number of Class II improvements, mostly in the northern residential neighborhoods the City. In total, the City contains 16.26 miles of bicycle infrastructure within its limits, 1.48 miles of Class I and 14.78 miles of Class II.


General Plan Land Use
City of San Bernardino
40TH
39TH
206
215
259
BASELINE
5TH
2ND
RIALTO
MILL
WATERMAN
TIPPECANOE
HUNTS
N
Miles
0 0.5 1 2
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

Bicycle Facilities
City of San Bernardino

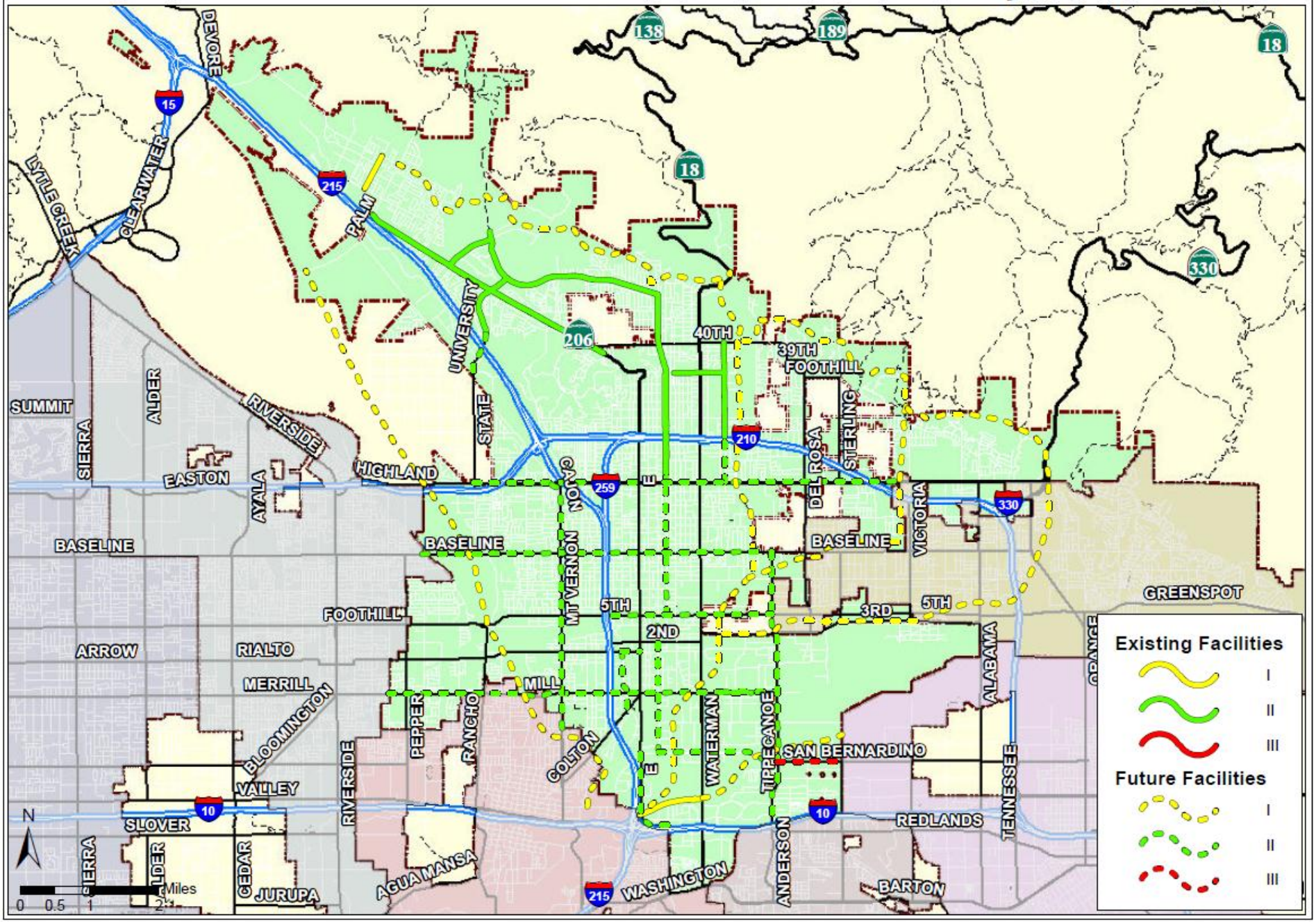


Table __:

San Bernardino Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Campus Pkwy	Kendall Dr	Northpark Blvd	II	0.72	$36,000
Chestbut Ave Bike Path	Ohio Ave	Irvington Ave	I	0.53	$530,000
Electric Ave	Northpark Blvd	Mountain View Ave	II	1.07	$53,500
Kendall Dr	Palm Ave	Shandin Hills Cr	II	3.89	$194,500
Mountain View Ave	Electric Ave	23rd St	II	3.06	$153,000
Northpark Blvd	Campus Pkwy	Electric Ave	II	2.99	$149,500
Parkdale Dr	Sierra Wy	Valencia Ave	II	0.71	$35,500
Santa Ana River Trail	W. City Limit	Waterman Ave	I	0.95	$950,000
University Pkwy	Northpark Blvd	Varsity Ave	II	1	$50,000
Valencia Ave	40th St	30th St	II	1.34	$67,000
			Total	**16.26**	**$2,219,000**

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of San Bernardino. Based on planning level estimates, the value of the improvements implemented throughout the City is $2,219,000.

Proposed Improvements

Future improvements to the non-motorized network for the City of San Bernardino will continue along the major transportation and drainage corridors throughout the City. Most of the City's future improvements focus on additional Class I facilities, but a supportive Class II network is also proposed. A table of future improvements is included in Table __ below.

At this time, the City of San Bernardino has several priority improvements identified. The first group of priority improvements includes the construction of bike lanes on G Street from Inland Center Dr. to Rialto Ave. and the construction of bike lanes on Rialto Ave. from G St. to E St. The second priority improvement within the City is the eastern extension of the Santa Ana River Trail from Waterman Ave. to Mountain View Ave. While the project is within the City of San Bernardino, the County of San Bernardino Department of Parks and Recreation has taken the lead on the project development and delivery.

When finished constructing its future bicycle network, the City will have added an additional 79.4 miles of Class I and II facilities, creating a substantial network of Class I bikeways and a supportive Class II bike lane network. The improvements will position

the City as a hub of non-motorized transportation in the San Bernardino Valley and provide a boost to the accessibility and connectivity throughout the Central and Eastern San Bernardino Valley.

Table __:

San Bernardino Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
5th St	H St	Tippecanoe Ave	II	2.28	$114,000
Arrowhead Ave	5th St	Orange Show Rd	II	1.97	$98,500
Baseline Rd	W City Limit	E City Limit	II	4.88	$244,000
Cajon/Lytle Creek Trail			I	9.24	$9,240,000
City Creek Trail	Mid City Connector	Palm Ave	I	19.81	$19,810,000
E St	Orange Show Rd	Hunts Ln	II	1.33	$66,500
G St	Rialto Ave	Inland Empire Dr	II	0.83	$41,500
Highland Ave	State St	Rockford Ave	II	6.11	$305,500
Mid City Connector	40th St	Santa Ana River Trail	I	7.46	$7,460,000
Mill St	Eucalyptus	Tippecanoe Ave	II	6	$300,000
Mountain View Ave	23rd St	5th St	II	2.04	$102,000
Mt Vernon Ave	Highland Ave	Grant St	II	3.59	$179,500
Orange Show Rd	E St	Tippecanoe Ave	II	1.75	$87,500
Rialto Ave	G St	E St	II	0.25	$12,500
San Bernardino Ave	Tippecanoe Ave	Mt. View Ave	III	0.91	$13,650
Sand Canyon Trail	Piedmont Dr	Mid City Connector	I	4.28	$4,280,000
Santa Ana River Trail	Waterman Ave	Mountain View Ave	I	2.28	$2,280,000
Tippecanoe Ave	Mill St	Baseline St	II	3.94	$197,000
University Ave	Varsity Ave	Cajon Blvd	II	0.71	$35,500
Valencia Ave	30th St	Highland Ave	II	0.65	$32,500
			Total	**80.31**	**$44,900,150**

Table __:
Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
G St.	Inland Center Dr.	Rialto Ave.	II	0.95	$47,500
Rialto Ave.	G St.	E St.	II	0.25	$12,500
Santa Ana River Trail	Waterman Ave.	Mountain View Ave.	I	2.29	$2,290,000
			Total	**3.49**	**$2,350,000**

Municipal Code

The municipal code for the City of San Bernardino does not currently include the mandatory requirement for the inclusion of non-motorized serving infrastructure as part of the site design or development process.

End of Trip Facilities

The City of San Bernardino has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes. The City also has a series of bike lockers located at the San Bernardino Metrolink Station.

Multimodal Connectivity

Table __:
Multimodal Connections

Facility	Facility Type	Facility Location
San Bernardino Metrolink Station	Train Station	3rd St.
Fourth St. Transit Mall	Bus Transfer Center	4th St. and G St.
Crossroads Church PNR	Ride Share Lot	3012 N. Waterman Ave
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:
Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	152
Total # of Bicycle Fatalities from 2005-2009	3
Average # of Bicycle Collisions Per Year	30.4
Average Bicycle Collision Rate per 1000/year[1]	0.15
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of San Bernardino does not currently participate in any bicycle safety or education programs.

County of San Bernardino

Population

296,284

County Overview

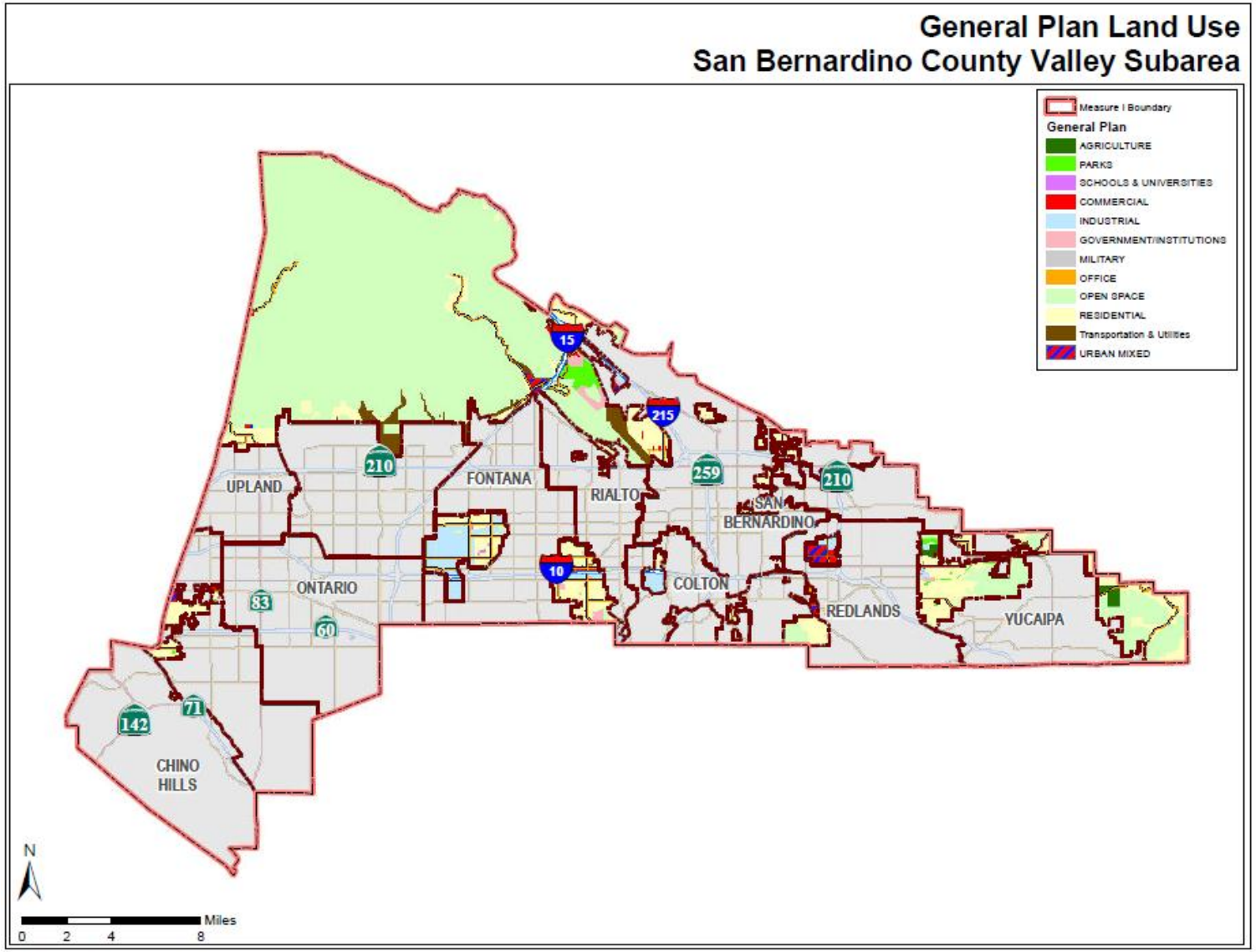
The area that would become the County of San Bernardino was originally part of the huge San Diego County in 1850. A year later, it became part of the expanding Los Angeles County. In April 1853, a bill was introduced to split off the eastern portion of Los Angeles County to form a separate county; and on April 26, 1853, San Bernardino County was created from parts of Los Angeles, San Diego, and Mariposa counties. In 1854, the City of San Bernardino was incorporated as the County seat. In 1893, Riverside County was created out of parts of San Bernardino and San Diego counties. The County of San Bernardino remains the largest county in the contiguous United States.

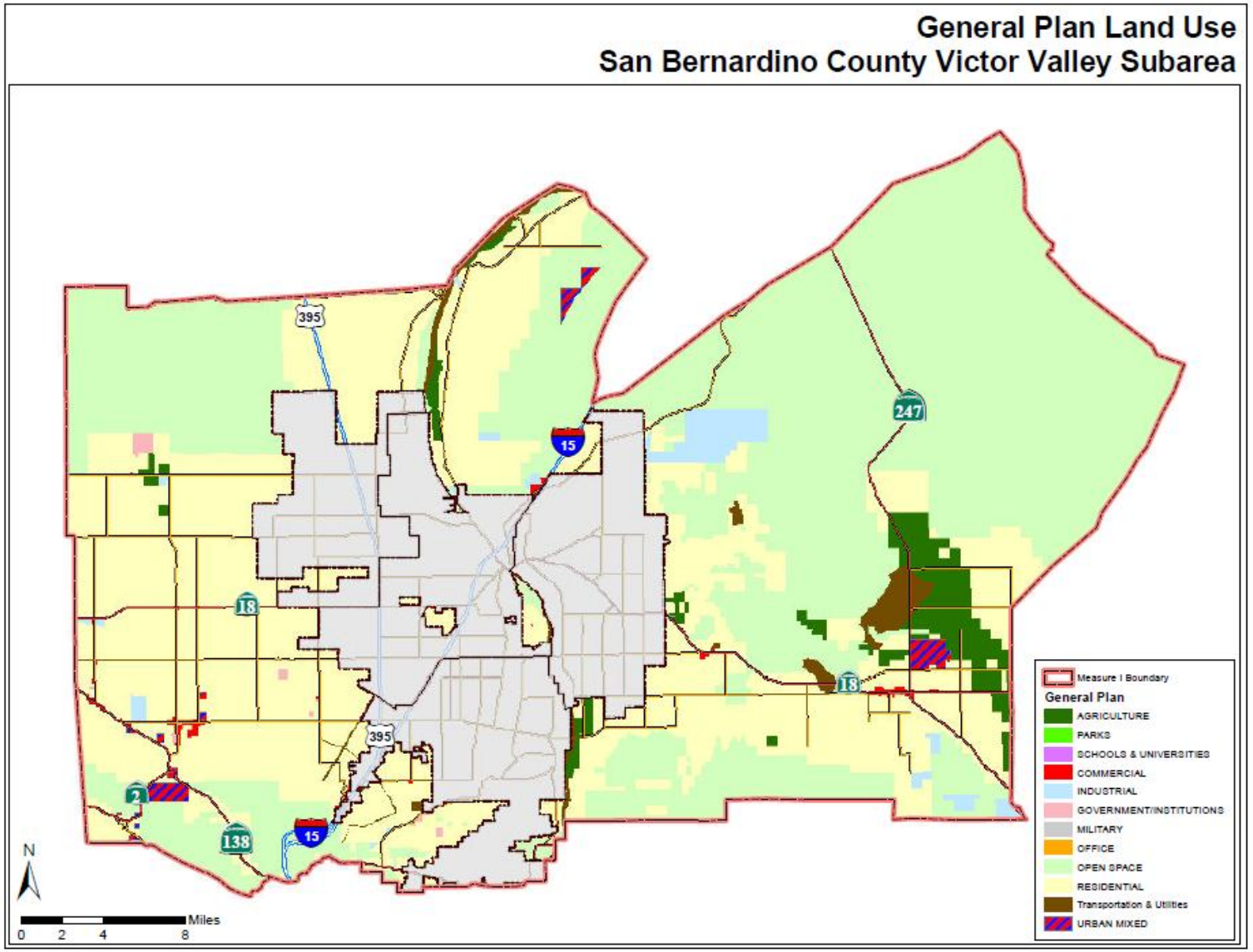
Land Use

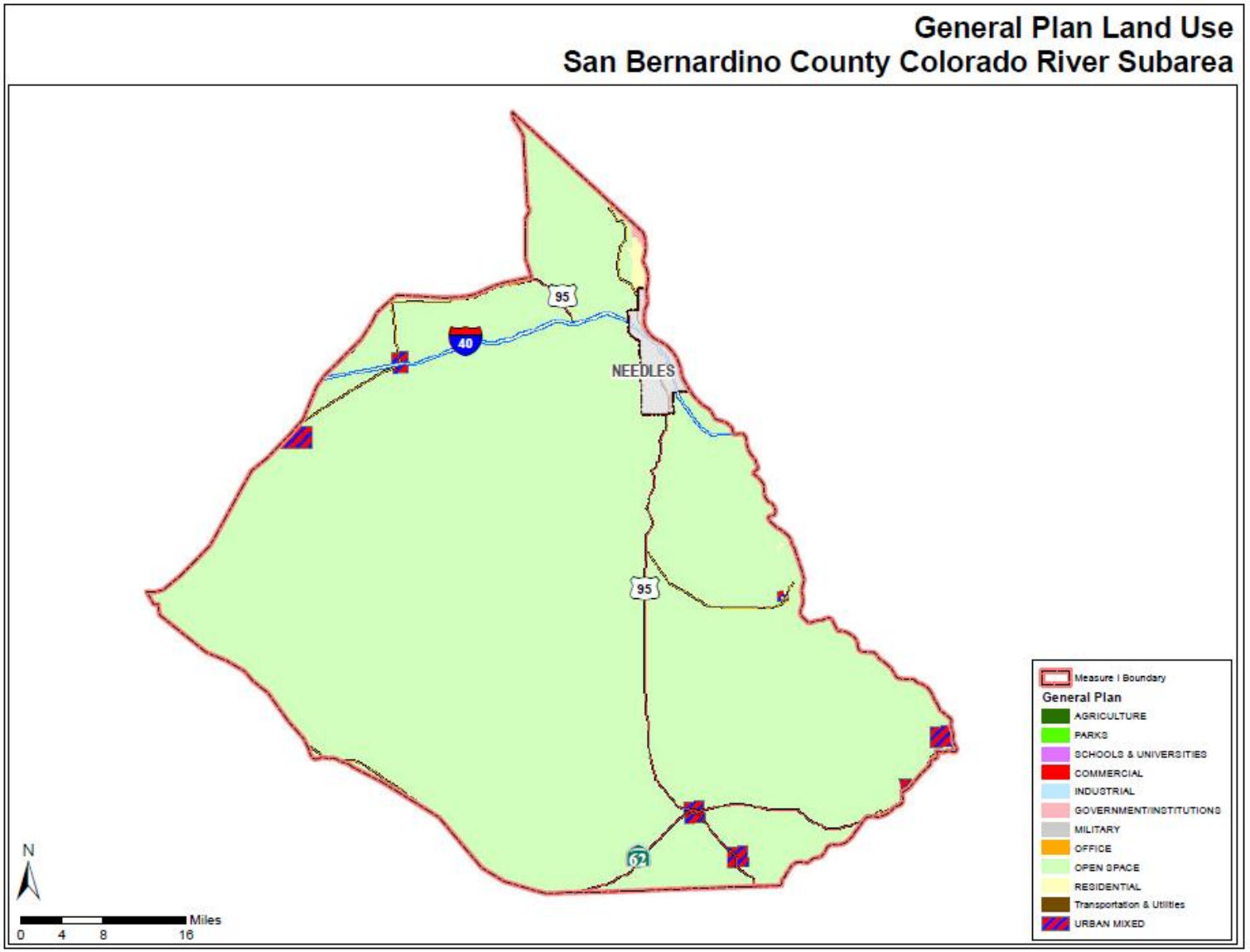
The County identifies three diverse planning regions—including the Valley, Mountains and Desert regions—which vary not only by terrain, but also in the issues and opportunities they face. Each of the three areas is mentioned in greater detail below.

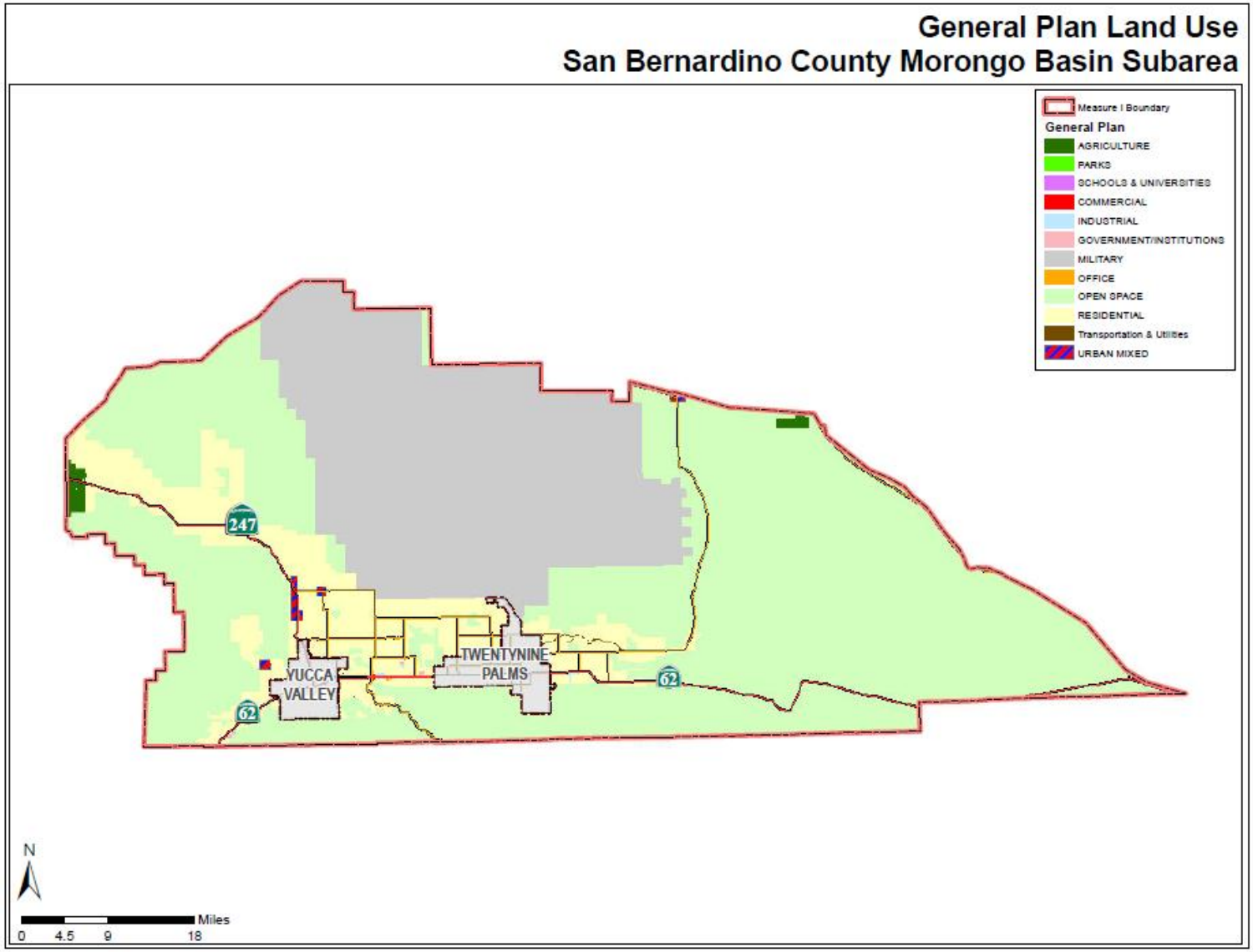
- Valley: The Valley Planning Region is defined as all the area within the County that is south and west of the U.S. Forest Service boundaries. The San Bernardino range, trending southeast, forms the eastern limit of the Valley, along with the Yucaipa and Crafton Hills. The southern limits of the valley are marked by alluvial highlands extending south from the San Bernardino and the Jurupa Mountains. The Valley Planning Region of the County is approximately 60 miles east of the Pacific Ocean and borders Los Angeles, Orange, and Riverside counties. It is approximately 50 miles long from west to east and encompasses 500 square miles. It covers only 2.5 percent of the total County land, but holds approximately 75 percent of the County's population. Most of the valley land is incorporated.

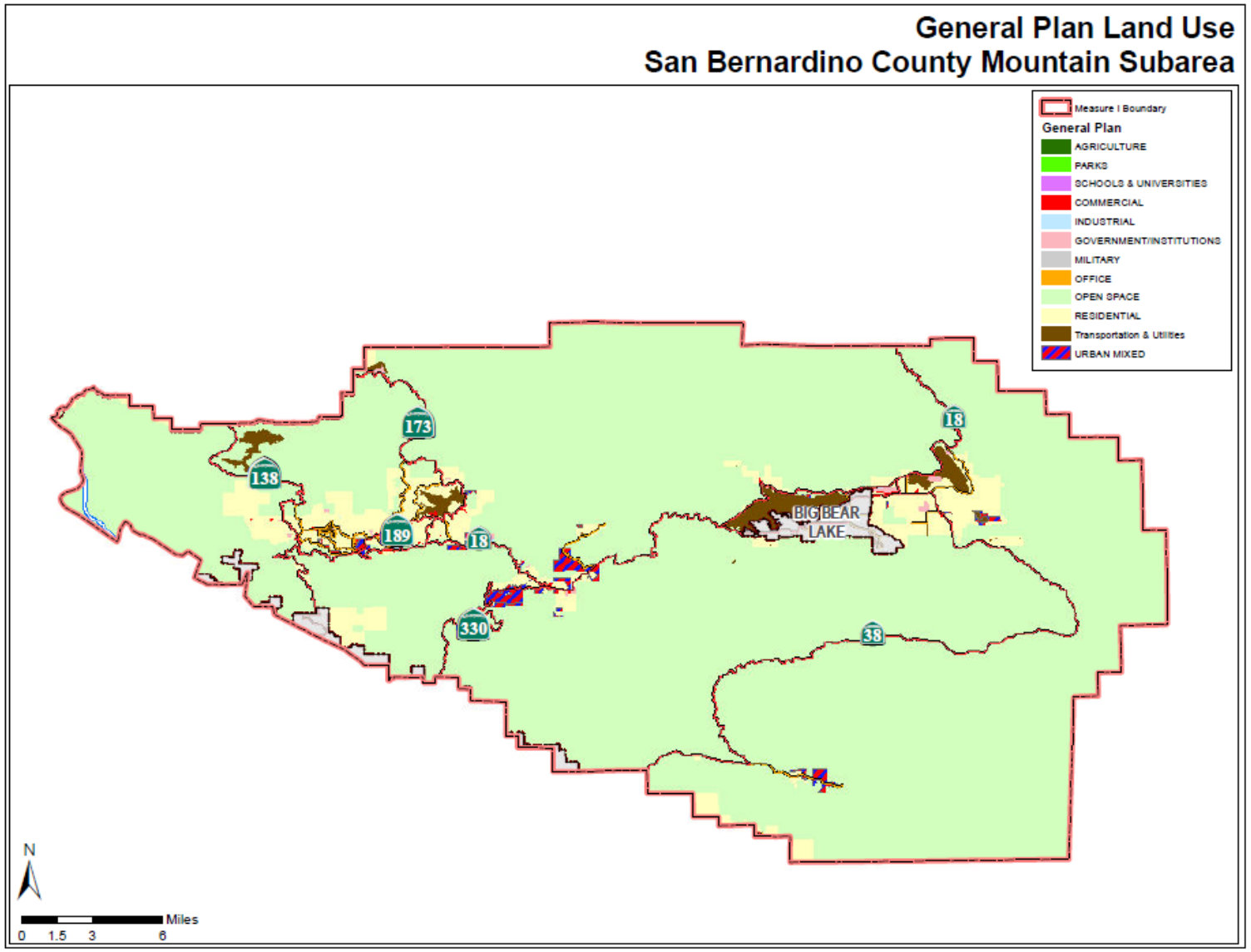
- Mountains: North of the Valley Planning Region is the Mountain Planning Region, consisting of the San Bernardino and San Gabriel ranges. Of the 872 square miles within this planning region, approximately 715 square miles are public lands managed by state and federal agencies—principally, the U.S. Forest Service. The region contains forests, meadows, and lakes. The San Gabriel Mountains, which extend from Los Angeles County, form the western end of the Mountain Planning Region. The San Gabriel Mountains comprise about one-third of the Mountain Planning Region, with the San Bernardino Mountains making up the remainder.

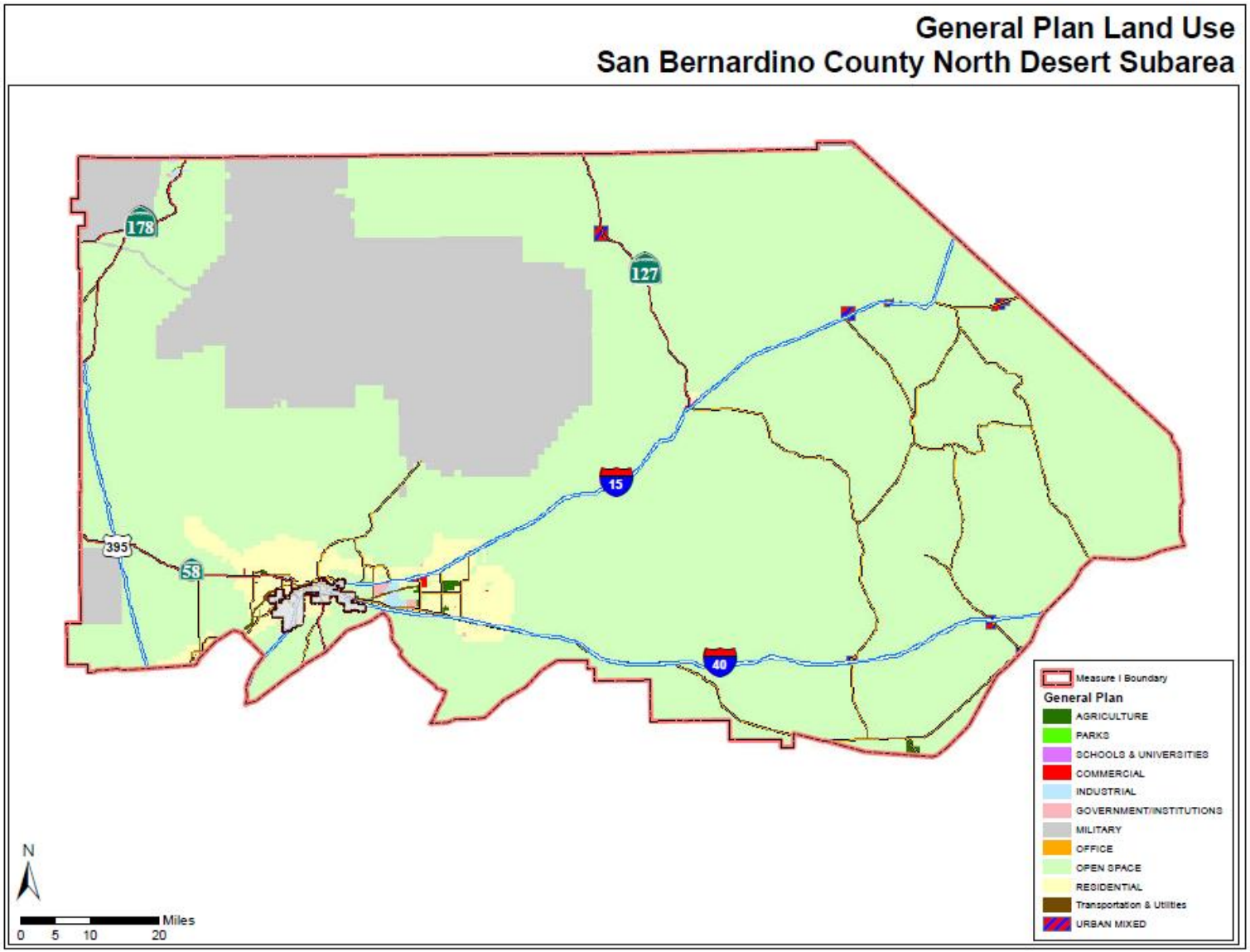

General Plan Land Use
San Bernardino County Valley Subarea
Measure I Boundary
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
UPLAND
FONTANA
RIALTO
SAN BERNARDINO
COLTON
REDLANDS
YUCAIPA
ONTARIO
CHINO HILLS
15
215
210
259
10
83
60
71
142
N
Miles
0 2 4 8

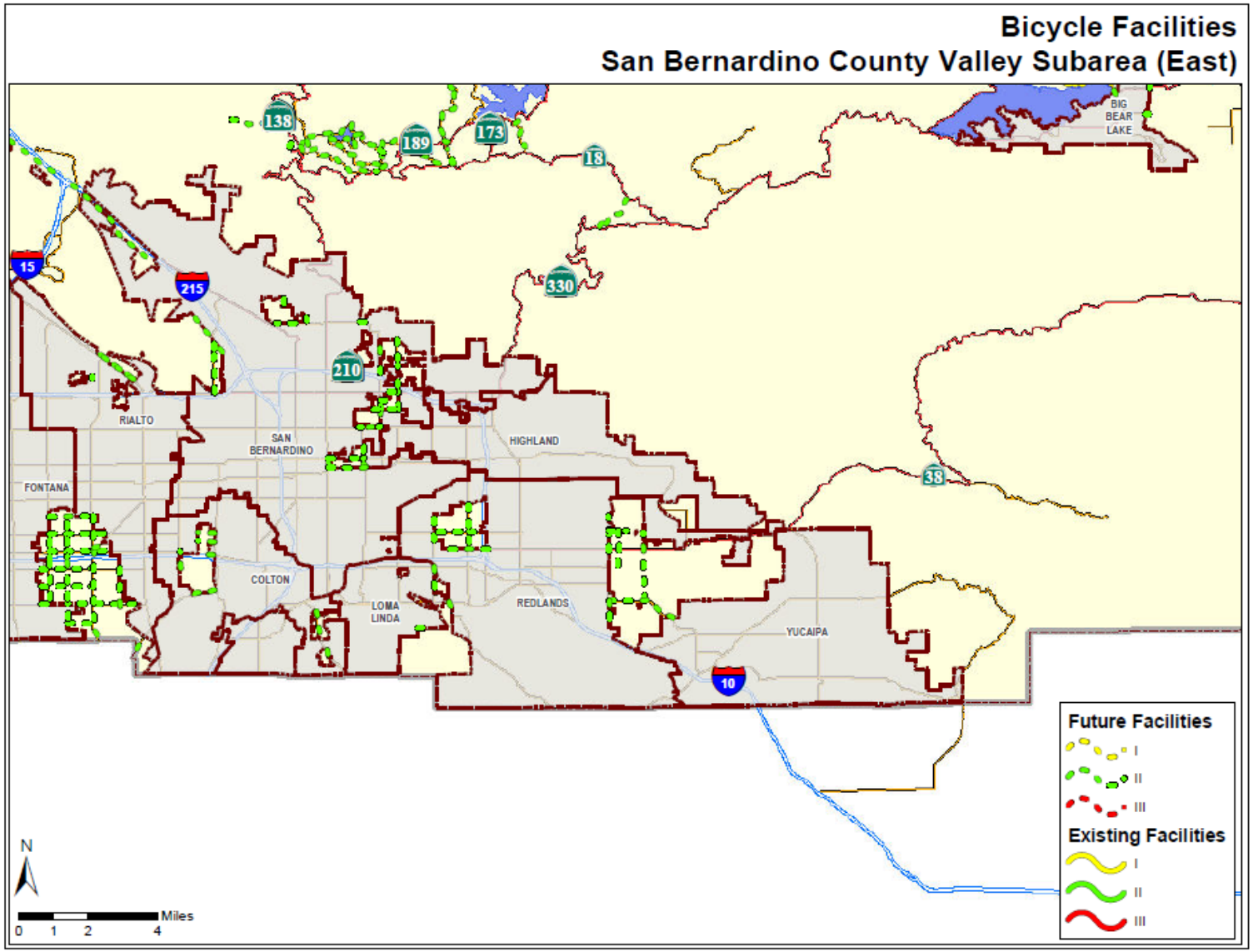

General Plan Land Use
San Bernardino County Victor Valley Subarea
395
15
247
18
395
2
138
15
18
N
Miles
0 2 4 8
Measure I Boundary
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED

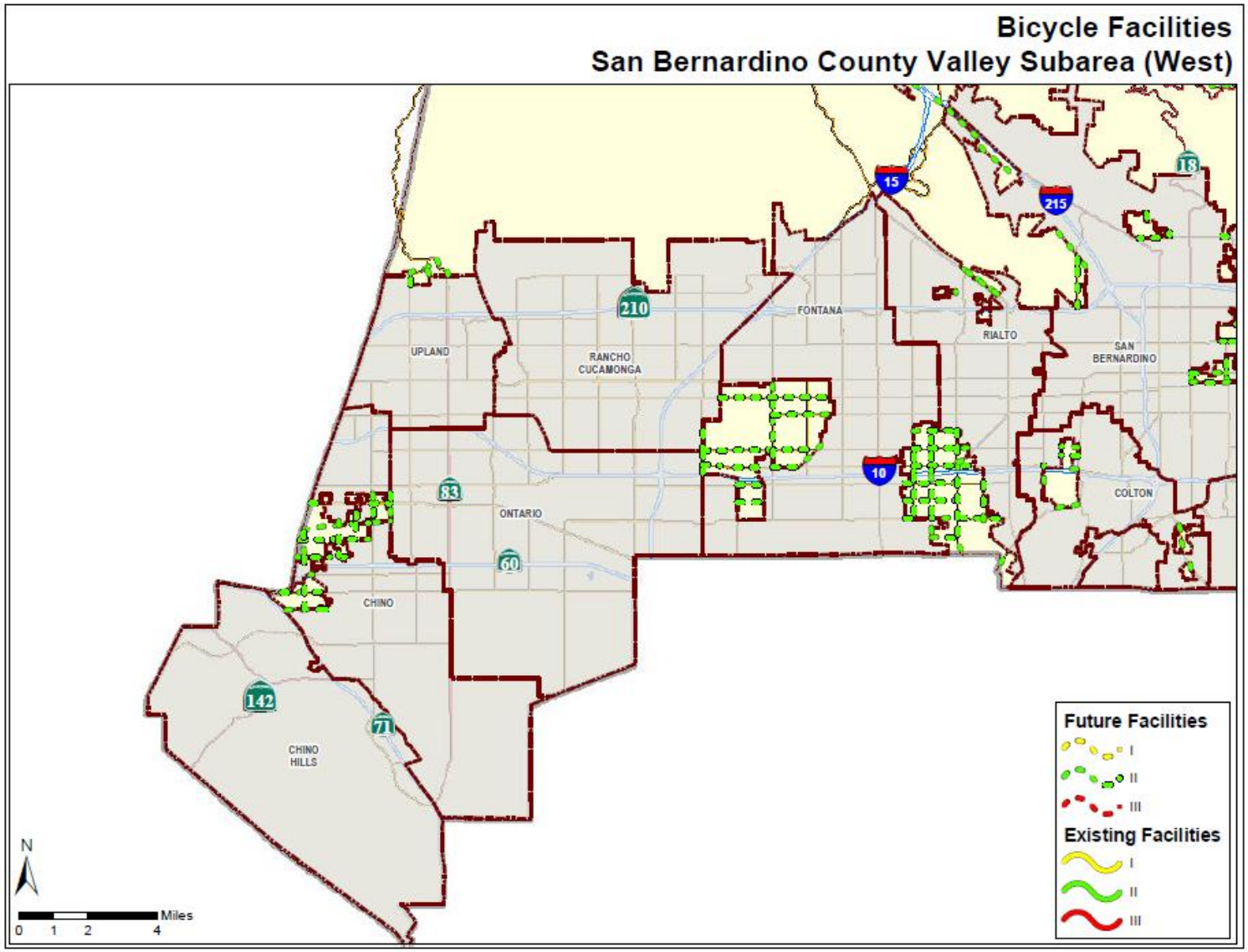

General Plan Land Use
San Bernardino County Colorado River Subarea
NEEDLES
95
40
95
62
N
Miles
0 4 8 16
Measure I Boundary
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED

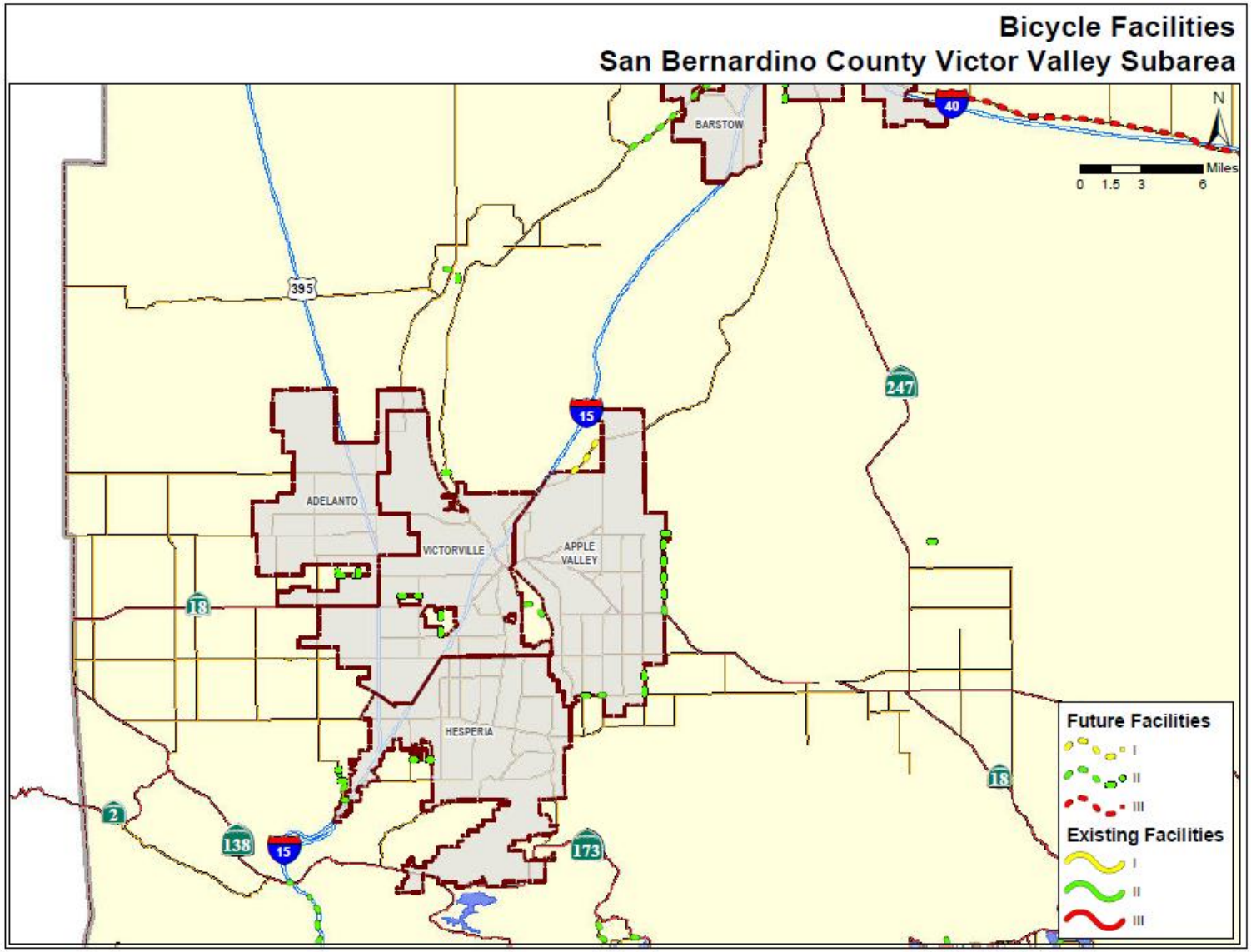

General Plan Land Use
San Bernardino County Morongo Basin Subarea
Measure I Boundary
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
247
62
62
YUCCA VALLEY
TWENTYNINE PALMS
N
Miles
0 4.5 9 18

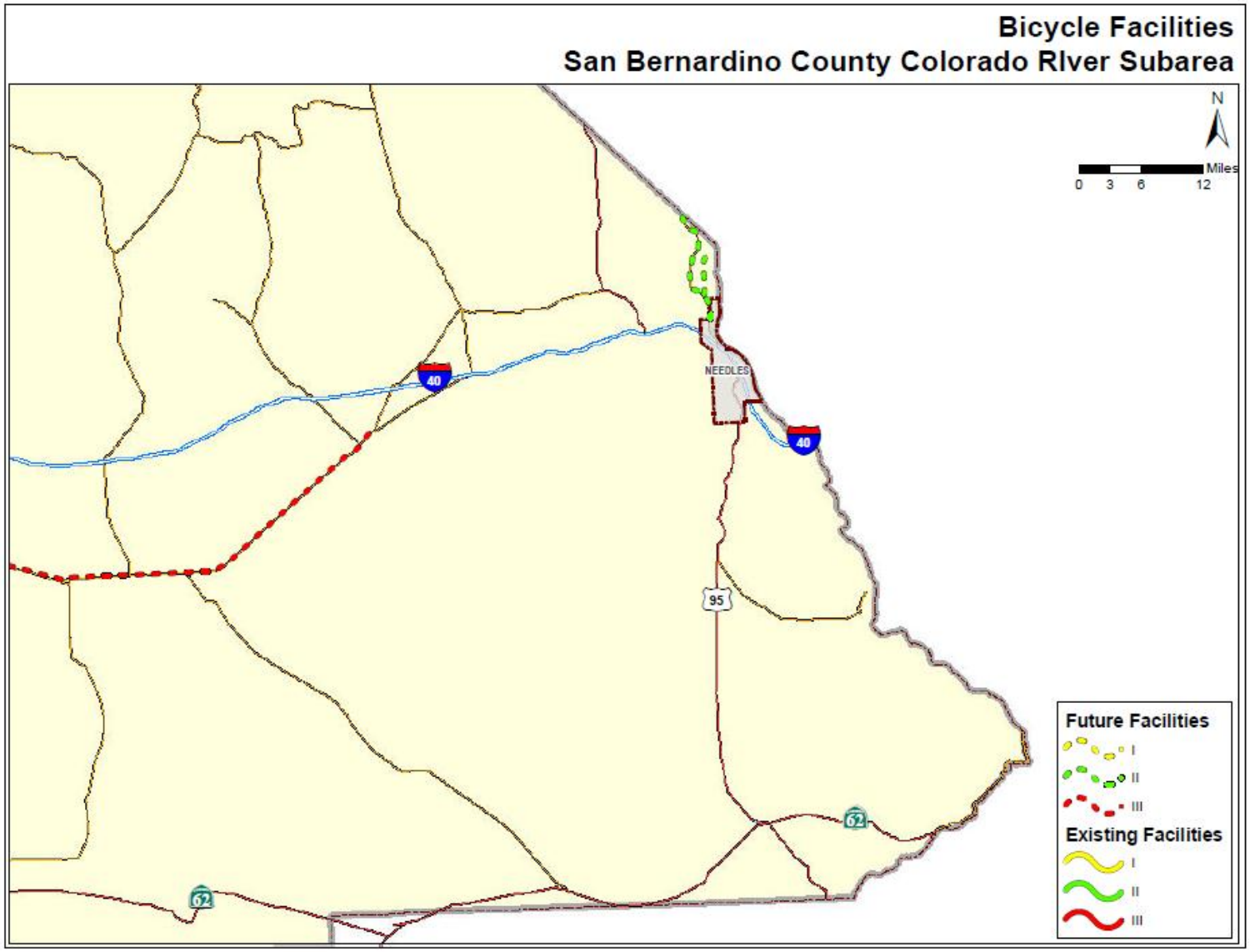

General Plan Land Use
San Bernardino County Mountain Subarea
Measure I Boundary
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
173
138
189
18
18
BIG BEAR LAKE
330
38
N
Miles
0 1.5 3 6

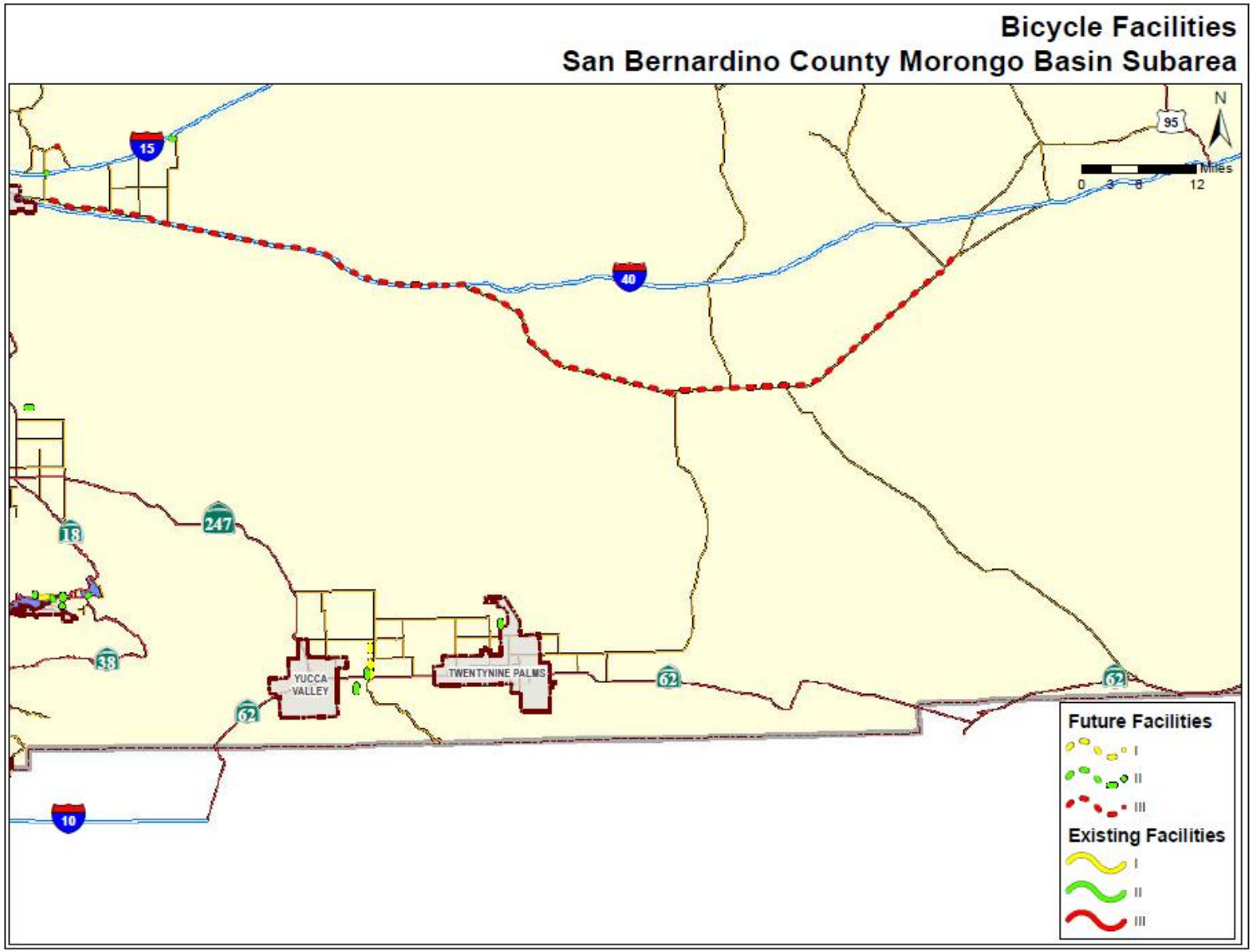

General Plan Land Use
San Bernardino County North Desert Subarea
178
127
15
395
58
40
N
Miles
0 5 10 20
Measure I Boundary
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED

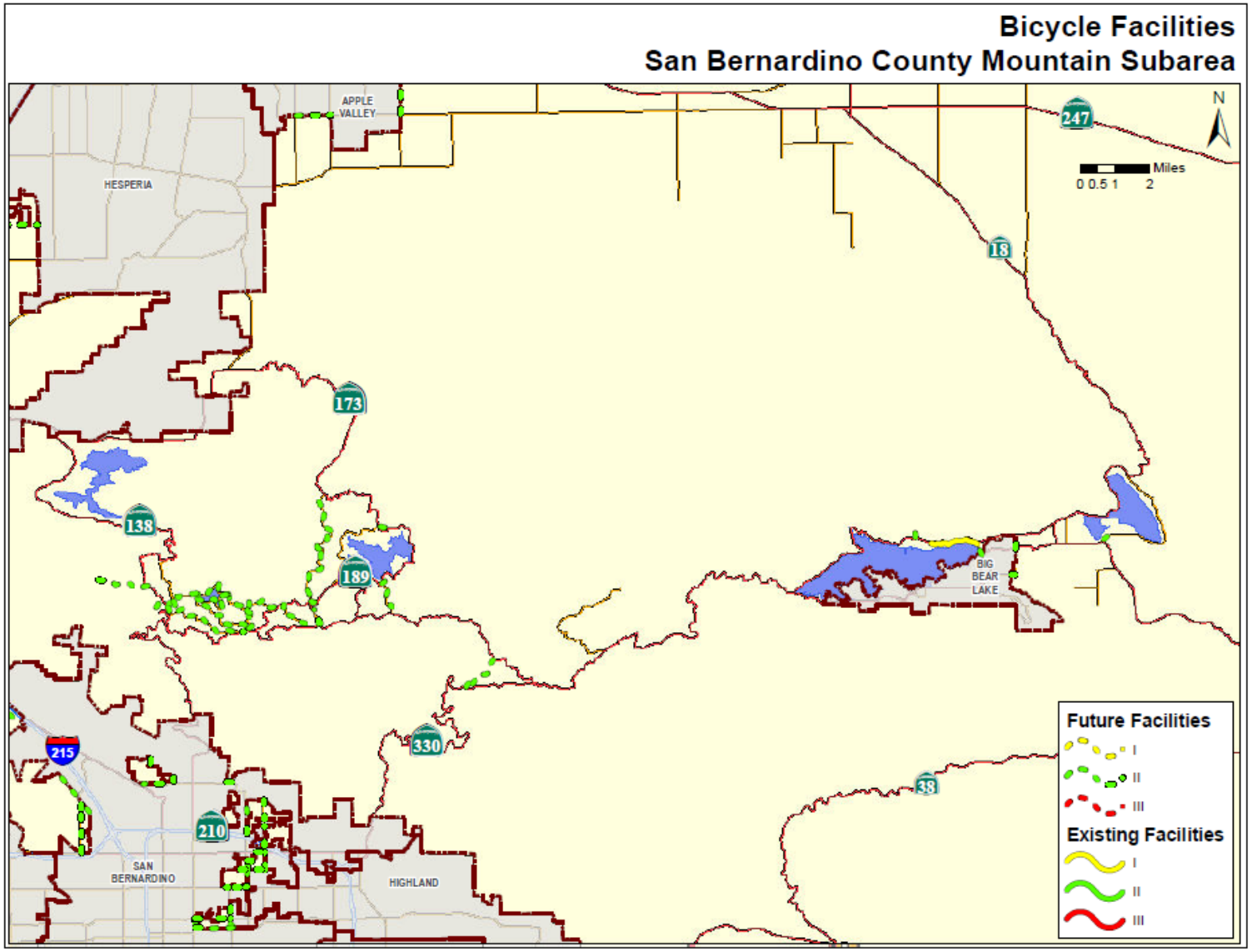

Bicycle Facilities
San Bernardino County Valley Subarea (East)
138
189
173
18
15
215
330
210
38
10
BIG BEAR LAKE
RIALTO
SAN BERNARDINO
HIGHLAND
FONTANA
COLTON
LOMA LINDA
REDLANDS
YUCAIPA
Future Facilities
I
II
III
Existing Facilities
I
II
III
N
Miles
0 1 2 4

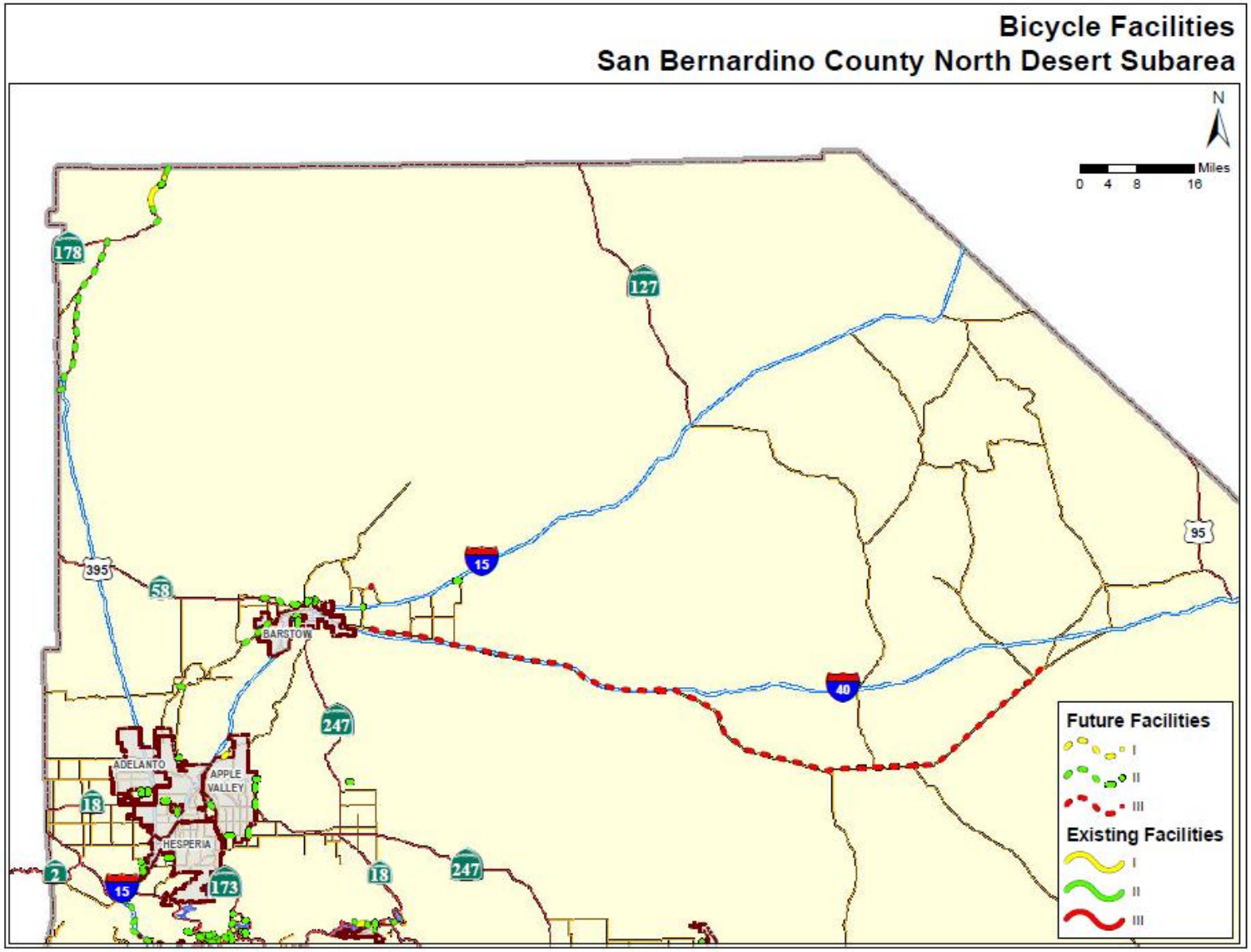

Bicycle Facilities
San Bernardino County Valley Subarea (West)
UPLAND
RANCHO CUCAMONGA
FONTANA
RIALTO
SAN BERNARDINO
COLTON
ONTARIO
CHINO
CHINO HILLS
15
215
18
210
10
83
60
142
71
N
Miles
0 1 2 4
Future Facilities
I
II
III
Existing Facilities
I
II
III


Bicycle Facilities
San Bernardino County Victor Valley Subarea
N
Miles
0 1.5 3 6
BARSTOW
ADELANTO
VICTORVILLE
APPLE VALLEY
HESPERIA
395
15
40
247
18
2
138
173
Future Facilities
I
II
III
Existing Facilities
I
II
III


Bicycle Facilities
San Bernardino County Colorado RIver Subarea
N
Miles
0 3 6 12
NEEDLES
40
40
95
62
62
Future Facilities
I
II
III
Existing Facilities
I
II
III


Bicycle Facilities
San Bernardino County Morongo Basin Subarea
N
Miles
0 3 6 12
15
40
95
18
247
38
62
YUCCA VALLEY
TWENTYNINE PALMS
10
Future Facilities
I
II
III
Existing Facilities
I
II
III


Bicycle Facilities
San Bernardino County Mountain Subarea
APPLE VALLEY
HESPERIA
SAN BERNARDINO
HIGHLAND
BIG BEAR LAKE
247
18
173
138
189
330
38
215
210
N
Miles
0 0.5 1 2
Future Facilities
I
II
III
Existing Facilities
I
II
III


Bicycle Facilities
San Bernardino County North Desert Subarea
N
Miles
0 4 8 16
178
127
395
58
15
95
40
247
18
2
173
BARSTOW
ADELANTO
APPLE VALLEY
HESPERIA
Future Facilities
I
II
III
Existing Facilities
I
II
III

- Desert: For purposes of Measure I, the Desert Planning Region, includes the Victor Valley, Morongo Basin, Mountains and Colorado River subareas. The Desert Planning Region is also the largest of the three planning regions, includes a significant portion of the Mojave Desert and contains about 93 percent (18,735 square miles) of the land within San Bernardino County. The Desert Planning Region is defined as including all of the unincorporated area of San Bernardino County lying north and east of the Mountain Planning Region. The Desert Planning Region is an assemblage of mountain ranges interspersed with long, broad valleys that often contain dry lakes.

Existing Conditions:

The County of San Bernardino has a total of ___ miles of Class I facility in the North Desert, Morongo Basin and Mountains areas. The existing conditions within the County of San Bernardino included in Table __ below.

Table __:
County of San Bernardino Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Alpine Pedal Path	SR-38	Woodland Tr.	I	1.52	$1,520,000
Sunburst St.	SR-62	Oleander Dr.	I	3.26	$3,260,000
Trona Rd.	Center St.	Adams St.	I	3.76	$3,760,000
Trona Rd.	Marshall St.	Athol St.	I	0.79	$790,000
			Total	**9.33**	**$9,330,000**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the County of San Bernardino has constructed 9.33 miles of Class I facilities at a rate of 0.93 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above provide important pedestrian and bicycle connections within rural Desert communities. Based on planning level estimates, the value of the improvements implemented throughout the City is $9,330,000.

Proposed Improvements

The list of future improvements within the County of San Bernardino is extensive. A table of future improvements is included in Table __ below.

Table __:

County of San Bernardino Proposed Improvements

Street/Path	From	To	Class	Mileage	Cost
1st St.	Old State 58	.46m NE Irwin Rd.	II	0.33	$16,500
3rd St.	Waterman Ave.	Tippecanoe Ave.	II	1.10	$55,000
40th St.	.03m E 3rd Ave.	.06m W Johnson St.	II	0.55	$27,500
40th St.	.08m W Golden Ave.	E .19m	II	0.18	$9,000
5th St.	Wabash Ave.	Crafton Ave.	II	2.26	$113,000
5th St.	Waterman Ave.	Tippecanoe Ave.	II	0.81	$40,500
7th St.	Locust Ave.	Cedar Ave.	II	0.76	$38,000
Agua Mansa Rd.	.16m S Holly	.07m N El Rivino Rd.	II	0.37	$18,500
Agua Mansa Rd.	.80m W Rancho Ave.	E .73m	II	0.68	$34,000
Alabama St.	Lugonia Ave.	.28m N Palmetto Ave.	II	1.26	$63,000
Alder Ave.	Jurupa Ave.	San Bernardino Ave.	II	1.92	$96,000
Armory Rd.	J St.	H St.	II	0.25	$12,500
Arosa Dr.	Dart Canyon Rd.	North Rd.	II	1.17	$58,500
Arrow Rte.	Hickory Ave.	Almeria Ave.	II	3.14	$157,000
Aster Rd.	Mojave Dr.	Cactus Rd.	II	0.50	$25,000
Baseline Rd.	.02m E Conejo Dr.	Glasgow Ave.	II	0.24	$12,000
Baseline Rd.	Perris Hill Rd.	Tippecanoe Ave.	II	0.08	$4,000
Baseline Rd.	Yates St.	Del Rosa Dr.	II	0.06	$3,000
Bear Springs Rd.	SR-18	SR-189	II	1.22	$61,000
Beaumont Ave.	Bryn Mawr Ave.	Whittier Ave.	II	0.25	$12,500
Bellflower St.	Mojave Dr.	Cactus Rd.	II	0.50	$25,000
Benson Ave.	.18m N Howard St.	State St.	II	0.34	$17,000
Benson Ave.	Phillips Blvd.	.06m N Howard St.	II	0.33	$16,500
Bloomington Ave.	Cedar Ave.	.11 NE Larch Ave.	II	0.40	$20,000
C St.	.07m W Jackson	.07m E Tejon Ave.	II	0.48	$24,000
Cactus Ave.	.24m N Cricket Dr.	Slover Ave.	II	1.35	$67,500
Cajon Blvd.	I-15	N of Palm Ave.	II	3.27	$163,500
Cajon Blvd.	June St.	California St.	II	1.74	$87,000
Cajon Blvd.	Santa Fe Fire	I-15	II	7.46	$373,000
California St.	.02m S Redlands NB Only	Orange Ave.	II	0.76	$38,000
California St.	Almond Ave.	Palmetto Ave.	II	0.75	$37,500
Cedar Ave.	Bohnert Ave.	.06m S Bohnert Ave.	II	0.06	$3,000
Cedar Ave.	Randall Ave.	El Rivino Rd.	II	3.60	$180,000
Central Ave.	State St.	Phillips Blvd.	II	0.83	$41,500
Central Rd.	Las Tunas Dr.	Tussing Ranch Rd.	II	1.50	$75,000
Cherokee St.	.9m W Harvard Rd.	Harvard Rd.	II	0.89	$44,500
Cherry Ave.	Valley Blvd.	.13 m S Foothill Blvd.	II	2.38	$119,000
Chino Ave.	SR-71	.13m E Pipeline Ave.	II	1.10	$55,000

Street/Path	From	To	Class	Mileage	Est. Cost
Crafton Ave.	Anzio Ave.	5th Ave.	II	1.93	$96,500
Crest Forest Dr.	Crestline Rd.	SR-18	II	3.35	$167,500
Daley Canyon Rd.	SR-189	SR-18	II	0.54	$27,000
Del Rosa Ave.	Del Roas Dr.	Pacific St.	II	0.38	$19,000
Del Rosa Ave.	Foothill Dr.	Eureka St.	II	0.38	$19,000
Del Rosa Ave.	Marshall Blvd.	Date St.	II	0.40	$20,000
Del Rosa Dr.	N of Del Rosa Ave.	Baseline Rd.	II	0.85	$42,500
Division Dr.	Robinhood Blvd.	North Shore Dr.	II	0.42	$21,000
E St.	S of 49th St.	Hill Dr.	II	0.18	$9,000
East End Ave.	Chino Ave.	Walnut Ave.	II	0.93	$46,500
East End Ave.	Grand Ave.	Maxon Ln.	II	1.20	$60,000
El Centro Rd.	Columbine Rd.	Oak Hill Rd.	II	0.12	$6,000
El Evado Rd.	La Brisa Rd.	Anacapa Rd.	II	1.29	$64,500
Electric Ave.	N of 40th St.	S of 44th St.	II	0.10	$5,000
Etiwanda Ave.	Napa St.	I-10	II	1.52	$76,000
Euclid Ave.	24th St.	Mountain Ave.	II	0.71	$35,500
Fern Dr.	Crest Forest Dr.	Lake Dr.	II	0.41	$20,500
Fontana Ave.	Valley Blvd.	Lime Ave.	II	0.89	$44,500
Fox Farm Rd.	.11m W McAlister.	McAlister Rd.	II	0.10	$5,000
Francis Ave.	.11m W East End Ave.	.13m E Telephone	II	1.99	$99,500
Ghost Town Rd.	I-15 Underpass	Yermo Rd.	II	0.15	$7,500
Grass Valley Rd.	SR-189	SR-173	II	4.70	$235,000
H St.	Rimrock Rd.	Linda Vista Ave.	II	1.00	$50,000
Highland Ave.	Osbun Rd.	Sterling Ave.	II	0.25	$12,500
Holcomb Valley Rd.	SR-38	N End	II	0.23	$11,500
Irwin Rd.	Old State 58	Radio Rd.	II	0.39	$19,500
Joshua Rd.	Waalew Rd.	Yucca Loma Rd	II	3.87	$193,500
Jurupa Ave.	Locust Ave.	.09m W Willow Ave	II	1.90	$95,000
Jurupa Ave.	Tamarind Ave.	Alder Ave	II	0.25	$12,500
Kuffel Canyon Rd.	SR-173.	SR-18	II	1.23	$61,500
Lake Dr.	SR-138.	Dart Canyon Rd	II	2.39	$119,500
Lake Gregory Dr.	Lake Dr.	SR-189	II	2.21	$110,500
Leona Rd.	Poplar St.	Old State 58	II	0.35	$17,500
Live Oak Dr.	SR-330	SR-18	II	1.64	$82,000
Loch Leven Rd.	SR-173	Cottage Grove Rd	II	0.11	$5,500
Locust Ave.	7th St.	11th St	II	0.28	$14,000
Locust Ave.	Jurupa Ave.	Randall Ave	II	2.39	$119,500
Lover Calico Acrd.	Calico Rd.	Cemetery Access	III	0.20	$3,000
Lugonia Ave.	W of Nevada St.	I-210	II	1.30	$65,000
Main St.	.19m NE Sweeten Ln.	.07m E Western Dr	II	1.88	$94,000
Main St.	Hinkley Rd.	Delaney Rd	II	3.20	$160,000
Merrill Ave.	Cherry Ave.	Catawba Ave	II	1.76	$88,000

Street/Path	From	To	Class	Mileage	Est. Cost
Mesquite Springs Rd.	Old Chisholm Trl.	N of Rainier Rd	II	0.49	$24,500
Mesquite St.	Escondido Ave.	Topaz Ave	II	1.00	$50,000
Mill St.	W limit	National Trails Hwy	II	0.30	$15,000
Mission Blvd.	.07m W Central Ave.	Benson Ave	II	0.56	$28,000
Mission Blvd.	LA County	.06m E Pipeline Ave	II	0.37	$18,500
Mojave Dr.	Aster Rd.	Mesquite Rd-WB Only	II	1.51	$75,500
Monte Vista Ave.	Francis Ave.	Howard Ave	II	0.78	$39,000
Mountain Ave.	23rd St.	Euclid Ave	II	1.36	$68,000
National Trails Hwy	A St	Goffs Rd	III	120.00	$1,800,000
Needles Hwy	N City Limits	N County Limits	II	11.92	$596,000
North Bay Rd	SR-173	Golden Rule Ln	II	0.35	$17,500
North Rd	Lake Gregory Dr	SR-189	II	2.14	$107,000
Oak Hill Rd	.02m N Caliente Rd	Mesquite St	II	2.28	$114,000
Old State 58	.06m W First St	.08m E Fern St	II	2.04	$102,000
Old State 58	.13m E Dixie Rd	Irwin Rd	II	6.77	$338,500
Old State 58	Irwin Rd	.02m W Camarillo Ave	II	0.33	$16,500
Olive St	W Colton Hole	E Colton Hole	II	0.49	$24,500
Opal Ave	San Bernardino Ave	Colton Ave	II	1.05	$52,500
Osdick Rd	Randsburg CTF	US 395	II	0.60	$30,000
Pacific St	Dwight Way	Sterling Ave	II	0.71	$35,500
Park Blvd	Twentynine Palms Hwy	Hill Top Dr	II	0.50	$25,000
Pepper Ave	Valley Blvd	Slover Ave	II	0.49	$24,500
Philadelphia St	E of Ramona Ave	W of Carlisle Ave	II	0.33	$16,500
Philadelphia St	W County Limit	Norton Ave	II	0.97	$48,500
Phillips Blvd	Central Ave	Benson Ave	II	0.50	$25,000
Phillips Blvd	LA County	.11m E Fremont Ave	II	1.92	$96,000
Ramona Ave	.03m N Philadelphia Ave	Grand Ave	II	1.01	$50,500
Ranchero Rd	W Oak Hill Rd	E Oak Hill Rd	II	0.25	$12,500
Randall Ave	Alder Ave	Cedar Ave	II	1.25	$62,500
Reche Canyon Rd	Fern Ln	Reche Canyon Rd	II	0.29	$14,500
Reche Canyon Rd	Utility Access Rd	Pepper Tree Ln	II	0.72	$36,000
River Rd	Soto Ranch Rd	Needles Hwy	II	3.65	$182,500
Riverside Ave	N Ayala Dr	SE of Pecan Ave	II	1.35	$67,500
Riverside Dr	Co E of Riverside Ter	Co E of Pipeline Ave	II	1.38	$69,000
Riverside OH	SE of Peach St	SE of Kauri Ave	II	1.25	$62,500
San Antonio Cresent W	Mountain Ave	San Antonio Cres E	II	0.21	$10,500
San Bernardino Ave	Alder Ave	.07m E Larch Ave	II	1.56	$78,000
San Bernardino Ave	California St	Redlands City Limit	II	1.34	$67,000
San Bernardino Ave	Etiwanda Ave	Fontana Ave	II	3.28	$164,000
San Bernardino Ave	Wabash Ave	.05m W Suffel St	II	0.53	$26,500
San Moritz Dr	Lake Gregory Dr	Arosa Dr	II	1.60	$80,000
San Timoteo Canyon Rd	Barton Rd	Nevada St	II	0.44	$22,000

Street/Path	From	To	Class	Mileage	Est. Cost
Santa Ana Ave	Mulberry Ave	Almond Ave	II	0.77	$38,500
Santa Ana Ave	Tamarind Ave	Cedar Ave	II	1.50	$75,000
Seneca Rd	.07m W Emerald Rd	Amethyst Rd	II	0.99	$49,500
Shay Rd	SR-38	.07m E Barranca Blvd	II	0.30	$15,000
Slover Ave	Mulberry Ave	Almond Ave	II	0.77	$38,500
Slover Ave	Tamarind Ave	Cedar Ave	II	1.50	$75,000
Stanfield CTF	N of SR-18	SR-38	II	0.44	$22,000
State St	Highland Ave	Cajon Blvd	II	1.18	$59,000
Sterling Ave	Along Unicorp Portions N	Along Unicorp Portions S	II	1.53	$76,500
Stoddard Wells Rd	Johnson Rd	Dale Evans Pkwy	I	2.19	$2,190,000
Sunny Vista Rd.	Twentynine Palms Hwy.	Mt View Tr.	II	1.90	$95,000
Tippecanoe Ave.	Vine St.	3rd St.	II	0.93	$46,500
Trona Rd.	Community of Argus	Pennacle Rd.	II	5.23	$261,500
Trona Rd.	High School	Rest Stop	II	1.19	$59,500
Trona Rd.	Inyo County Limit	Marshall St.	II	0.87	$43,500
Trona Rd.	Marshall St.	High School	I	0.97	$970,000
Trona Rd.	Rest Stop	Community of Argus	I	1.29	$1,290,000
Trona Rd.	US 395	SR-178	II	21.14	$1,057,000
Trona Rd. OH N	Center St.	E.16m	II	0.22	$11,000
Tussing Ranch Rd.	Deep Creek Rd.	Kiowa Rd.	II	1.00	$50,000
Valley Blvd.	Alder Ave.	Spruce Ave.	II	1.75	$87,500
Valley Blvd.	Cherry Ave.	Hemlock Ave.	II	0.76	$38,000
Valley Blvd.	Etiwanda Ave.	Commerce Dr.	II	0.49	$24,500
Valley Blvd.	Mulberry Ave.	Almond Ave.	II	0.83	$41,500
Valley Blvd.	W Colton Hole	E Colton Hole	II	0.43	$21,500
Vista Rd.	Lakeview Dr.	Jordan Rd.	II	1.32	$66,000
Waalew Rd.	Joshua Rd.	.03m E Tiama	II	0.44	$22,000
Waalew Rd.	Meridian Ave.	E Limit	II	0.47	$23,500
Wabash Ave.	.3m S 7th St.	.13m N 7th St.	II	0.42	$21,000
Wabash Ave.	5th St.	6th St.	II	0.25	$12,500
Wabash Ave.	Sessums Dr.	Naples Ave.	II	1.00	$50,000
Walnut Ave.	.1m W Roswell Ave.	Roswell Ave.	II	0.10	$5,000
Waterman Ave.	6th St.	3rd St.	II	0.26	$13,000
Waters Dr.	Crest Forest Dr.	SR-138	II	1.60	$80,000
Yates Rd.	.24m N Chinquapin Dr.	.02S Fortuna	II	1.35	$67,500
			Total	**331.49**	$16,595,000

The County of San Bernardino has not identified any priority improvements. When complete, the County will have constructed an additional 331.49 miles of Class I, Class II and Class III, providing interregional connectivity to the residents of the County, including many of the County's rural residents.

Table __:
Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Development Code

The County of San Bernardino has developed the following Development Codes related to non-motorized infrastructure

82.19.050 - Development Standards for Trails - The following standards shall be used to evaluate proposed trails:

Table 83-23
Urban Standards (Maximum Accessibility)

Item	Bicycle+ Pedestrian[1]	Bicycle-only[1]	Hiking-only	Equestrian-only[4]
Minimum width (one way)	10 ft.	5 ft.	5 ft.	8 ft.
Minimum width (two way)	12 ft.	8-10 ft.	8-10 ft.	10 ft.
Surface	Hardened, e.g. asphalt[2]	Hardened, e.g. asphalt	Hardened	Hard-packed, No paving
Shoulder	2 ft. minimum	2 ft. minimum	2 ft. minimum	2 ft. minimum
Vertical Clearance	12 ft.	10 ft.	10 ft.	12 ft.
Cross Slope	2% maximum	2% maximum	2% maximum	2% maximum
Maximum Grade	5%	5%	5%	Maximum limit is erosion control

Table 83-24
Low Use and Natural Area Standards

Item	Bicycle+ Pedestrian[1]	Bicycle-only[1]	Hiking-only	Equestrian-only[4]
Minimum width (one way)	6-8 ft.	2 ft.	2 ft.	6 ft.
Minimum width (two way)	8-10 ft.	2 ft.	4 ft.	8 ft.
Surface	Firm all weather and unobstructed	Minimize erosion	Minimize erosion	Minimize erosion
Shoulder	2 ft. minimum	2 ft. minimum	2 ft. minimum	2 ft. minimum
Vertical Clearance	10 ft.	8 ft.	8 ft.	12 ft.
Cross Slope	3% maximum	3% maximum	3% maximum	3% maximum
Maximum Grade	5%; rest and turning areas every 200 ft. minimum	Maximum limit is erosion control	Maximum limit is erosion control	Maximum limit is erosion control

83.14.030 - Transportation Control Measures Development Standards

(a) Bicycle parking required. Bicycle parking facilities or secured bicycle lockers shall be provided for all non-residential and multi-family (of 10 or more units) developments when discretionary review is required. Parking racks or secured lockers shall be provided at a rate of 1 per 30 parking spaces with a minimum of a three-bike rack.

(b) Pedestrian and bicycle connections to streets. On-site pedestrian walkways and bicycle facilities shall be provided connecting each structure in a development to public streets for all new non-residential and multi-family (of 10 or more units) development.

(c) Shower facility. A minimum of one shower facility accessible to both men and women shall be provided for persons bicycling or walking to work for all new nonresidential development generating 250 or more peak hour trips.

(j) Bicycle Plan. Participate in implementation of the Countywide Bicycle Plan (when adopted).

84.16.050 - Development Standards Applicable for Multi-Family Projects – Four to 19 Units

(g) Storage.

(2) Bicycle/motorcycle storage area. All multi-family projects shall provide covered, enclosed, and secure storage areas for bicycles and motorcycles. Motorcycle spaces shall be at least four feet by eight feet.

87.05.030 – Dedications

(a) Streets, highways, and flood control rights-of-way.

(2) In addition, the subdivider shall improve or agree to improve all streets, alleys, including access rights and abutters' rights, drainage, public utility easements and other public easements. The subdivider may also be required to dedicate the additional land as may be necessary and feasible to provide bicycle paths for the use and safety of residents of the subdivision.

87.06.050 Subdivision Improvement Requirements

(a) Bicycle/walking paths and hiking/equestrian trails. Depending on the circumstances surrounding a specific project, the County may require, as a condition of approval, the subdivider to construct bicycle/walking paths and/or hiking/equestrian trails within an approved subdivision as determined by the review authority. In the event the review authority determines that path or trail construction within a subdivision would be infeasible or constitute unsound engineering, the review authority may grant the subdivider the option to pay into a fund, dedicated for these uses, the amount per foot, as determined by the review authority.

End of Trip Facilities

The County of San Bernardino has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

The County of San Bernardino has the following multimodal facilities that interface with the non-motorized transportation system.

Facility	Facility Type	Facility Location
Bloomington PNR	Ride Share Lot	10175 Cedar Rd
Crestline PNR	Ride Share Lot	Forest Shade & Lake Dr.
County-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	182
Total # of Bicycle Fatalities from 2005-2009	9
Average # of Bicycle Collisions Per Year	36.4
Average Bicycle Collision Rate per 1000/year[1]	0.12
Index (relative to statewide average of __/1000[2]	

Notes:
1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The County of San Bernardino does not currently participate in any bicycle safety or education programs.

City of Twentynine Palms

Population

30,649

City Overview

The City of Twentynine Palms, encompassing 78.4 square miles, is located in the Morongo Basin which forms the southwestern corner of the Mojave Desert. This basin includes Joshua Tree National Park and the Marine Corps Air Ground Combat Center (MCAGCC) to the north, which visitors pass through Twentynine Palms to reach. The Mojave Desert is separated from the Sonoran Desert to the south by the Little San Bernardino and Eagle Mountains, which are extensions of the Transverse Ranges. The western Mojave Desert is a flat, sparsely vegetated region that is interspersed with mountain ranges and dry lakes. The area is part of the high desert, large portions of which are at elevations between 2,500 and 4,000 feet above mean sea level.

Land Use

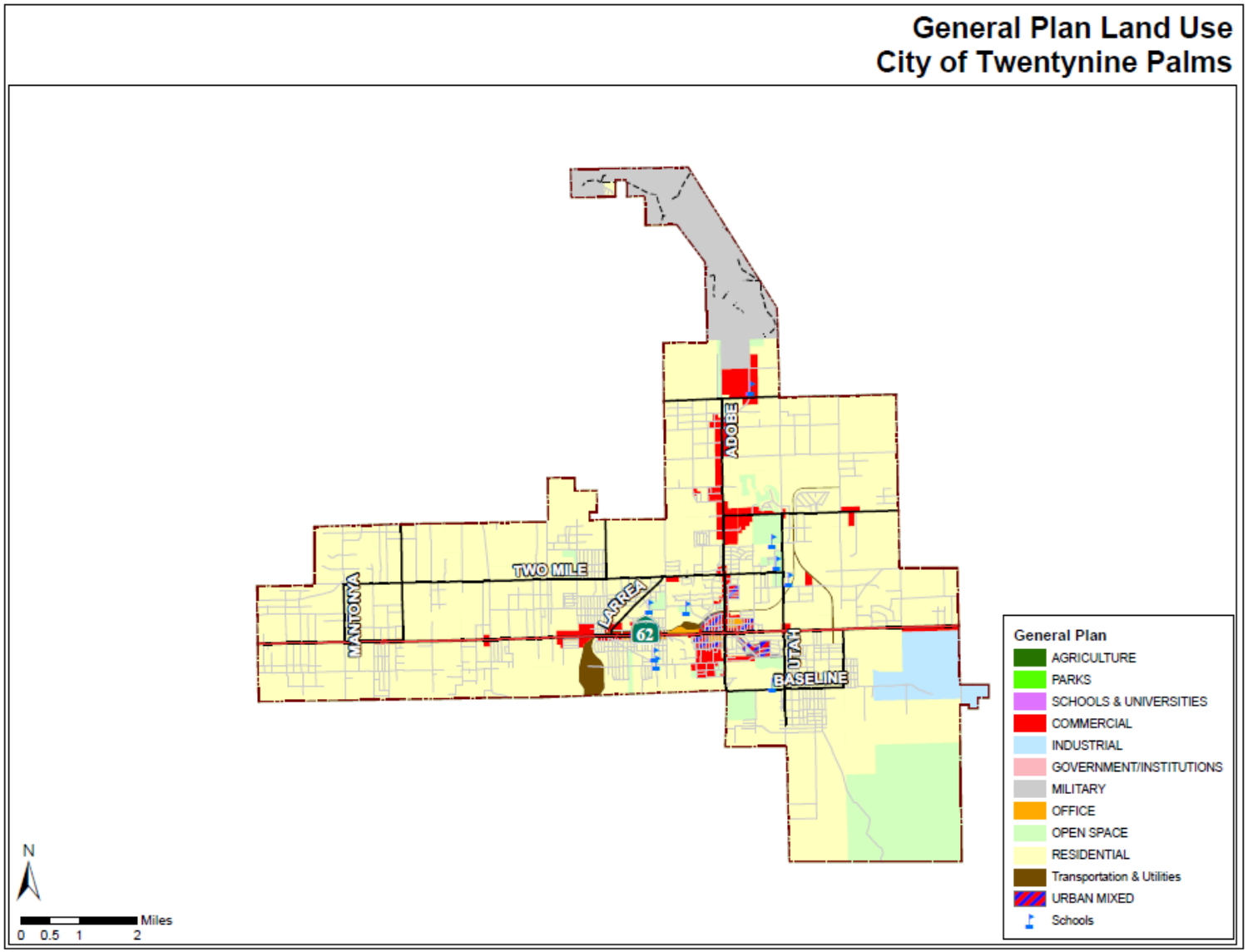
Twentynine Palms has historically been a rural desert residential community. The area's original inhabitants were the Serrano and Chemehuevi Indians, followed by gold miners, then World War I veterans, who were the first modern settlers of the City in the 1920s.

Development in Twentynine Palms has consisted primarily of residential development, mostly within the central core of the City. In recent years, there has been an increase in the amount of commercial development in the City, most focused along Twentynine Palms Highway, west of Downtown. Conversely, there has been limited industrial development in the City.

Existing Conditions:

Twentynine Palms' non-motorized bicycle network has expanded significantly since the last update to the Non-Motorized Transportation Plan. The City contains several sections of Class I bikeway along Mesquite Springs Rd and Two Mile Road for a total of 2.5 miles.

The City has also constructed one approximately 4 mile stretch of Class II bike lane along Utah Trail from State Route 62 to the entrance of the Joshua Tree National Park. In total, the City of Twentynine Palms has constructed 7.33 miles of Class I, 5.95 miles of Class II and 0.25 miles of Class III facilities.


General Plan Land Use
City of Twentynine Palms
ADOBE
TWO MILE
LARREA
MANTONA
62
UTAH
BASELINE
N
Miles
0 0.5 1 2
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

Bicycle Facilities
City of Twentynine Palms

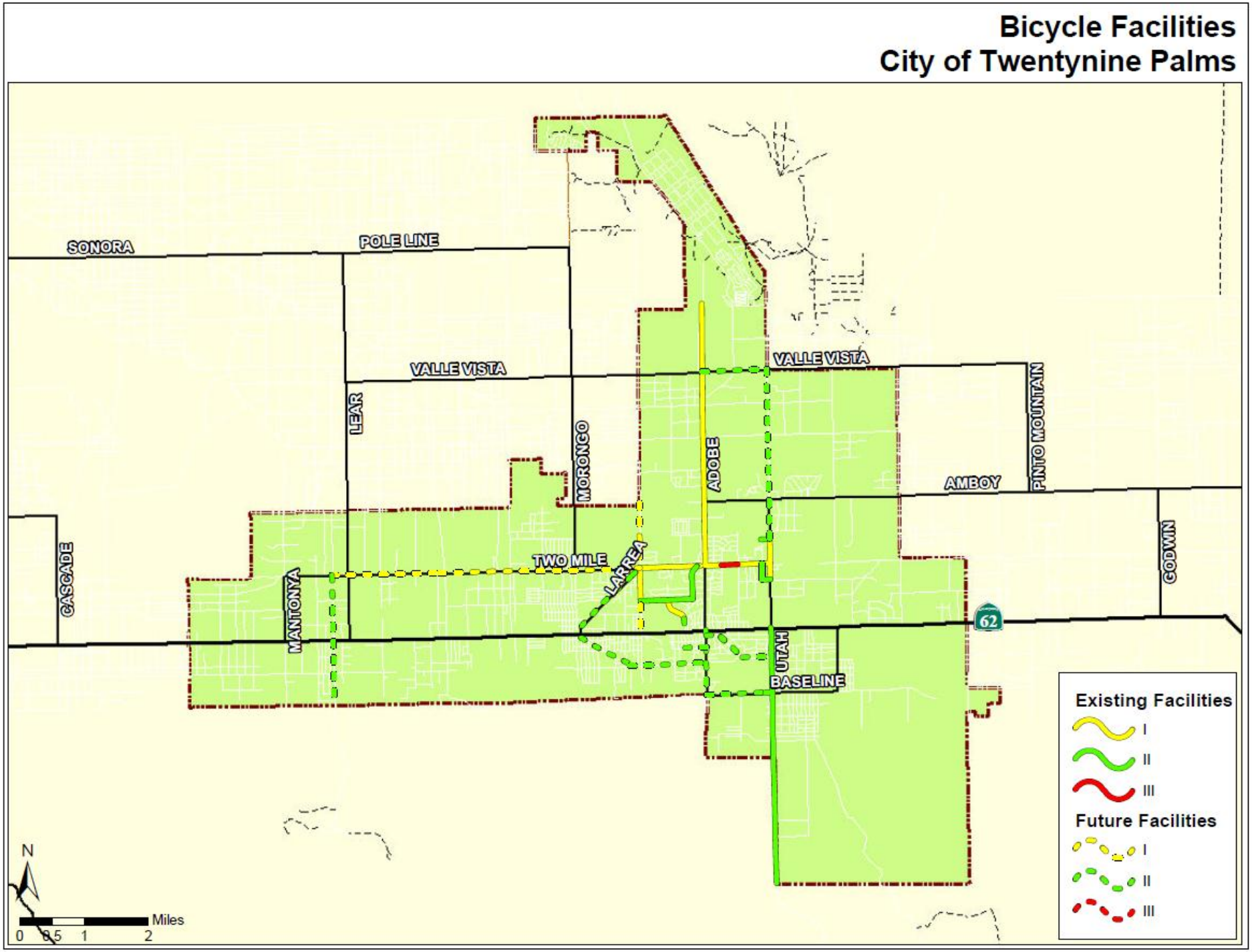


Table __:

Twentynine Palms Existing Conditions

Street/Path	From	To	Class	Mileage	Cost
Adobe Rd	MCAGCC	Two Mile Rd	I	4.05	$4,050,000
Aztec Ave	Luckie Ave	Utah Trail	II	0.13	$6,734
Bagley Ave	El Paseo Rd	Two Mile Rd	II	0.54	$27,168
Baseline Ave	Utah Trail	1000ft w/o Utah Trail	II	0.16	$8,000
El Paseo Dr	Bagley Ave	Mesquite Springs Rd	II	0.8	$40,000
Joe Davis Dr	Luckie Ave	Utah Trail	II	0.12	$6,000
Luckie Ave	Two Mile Rd	Joe Davis Dr	II	0.24	$12,000
Mesquite Springs Rd	Two Mile Rd	Wildcat Wy	I	0.57	$570,000
Split Rock Ave	Buena Vista Rd	El Paseo Rd	I	0.41	$410,000
Two Mile Rd	Mesquite Springs Rd	Howard Wy	I	0.93	$930,000
Two Mile Rd	Adobe Rd	Aztec Ave	I	0.25	$250,000
Two Mile Rd	Aztec Ave	Desert Knoll Dr	III	0.25	$3,750
Two Mile Rd	Desert Knoll Dr	Utah Tr	I	0.5	$500,000
Utah Tr	SR-62	Joshua Tree Guard Shack	II	3.96	$198,000
Utah Tr	Aztec Ave	Joe Davis Dr	I	0.62	$620,000
			Total	**13.54**	**$7,631,653**

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Twentynine Palms. Based on planning level estimates, the value of the improvements implemented throughout the City is $7,631,653.

Proposed Improvements

Future improvements to the non-motorized network for the City of Twentynine Palms will continue along the major transportation corridors throughout the City. All future improvements focus on further development of additional Class I and II facilities. A table of future improvements is included in Table __ below.

The City of Twentynine Palms has not identified any priority improvements. When complete, the City will have constructed an additional 19.36 miles of Class I and Class II providing internal connectivity to the residents of Twentynine Palms and establishing connections to the roadway networks of the unincorporated Morongo Basin and state highway system.

Table __:

Twentynine Palms Future Improvements

Street/Path	From	To	Class	Mileage	Cost
Adobe Rd	SR-62	Baseline	II	1	$50,000
Baseline	Adobe Rd	1000ft w/o Utah Tr	II	0.83	$41,500
Cactus Dr	Adobe Rd	National Park Dr	II	0.17	$8,500
Hatch Rd	Manzanita Ave	Stardune Ave	II	0.87	$43,500
Indian Cove Rd	Two Mile Rd	S. City Limit	II	2	$100,000
Larrea Ave	Two Mile Rd	SR-62	II	1.36	$68,000
Mesquite Springs Rd	Amboy Rd	Two Mile Rd	I	1.01	$1,010,000
Mesquite Springs Rd	Wild Cat Wy	SR-62	I	0.42	$420,000
National Park Dr	Cactus Dr	Utah Tr	II	1.48	$74,000
Old Dale Rd	Split Rock Rd	Adobe Rd	II	0.33	$16,500
Split Rock Ave	Sr-62	El Paseo Rd	II	0.19	$9,500
Sullivan Rd	Stardune Ave	Adobe Rd	II	1.18	$59,000
Two Mile Rd	Indian Cove Rd	Mesquite Springs Rd	I	4.89	$4,890,000
Utah Tr	Valle Vista Rd	Aztec Dr	II	2.63	$131,500
Valle Vista Rd	Adobe Rd	Utah Tr	II	1	$50,000
			Total	**19.36**	**$6,972,000**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

Although the municipal code for the City of Twentynine Palms does not currently include the mandatory requirement for the inclusion of non-motorized transportation serving infrastructure as part of the site design process, such standards are being considered for inclusion within the update to the City's General Plan and may be included within the update to the City's Development Code.

End of Trip Facilities

The City of Twentynine Palms has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Table __:
Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
Twentynine Palms Transit Center	Bus Transfer Center	Adobe & Cactus
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:
Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	5
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	1.0
Average Bicycle Collision Rate per 1000/year[1]	0.04
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Twentynine Palms does not currently participate in any bicycle safety or education programs.

City of Upland

Population

76,106

City Overview

The City of Upland was incorporated on May 15, 1906, after previously being named North Ontario. The City was originally established as an irrigation colony by George and William Chaffey. Upland is located approximately 35 miles west of Los Angeles and immediately below the San Gabriel mountain range. The City provides a gateway to the Los Angeles National Forest and the Mount Baldy recreational area.

Land Use

The northern portion of the City is mostly low-density residential. The steep hillsides leading up to the San Gabriel mountain range make it less appropriate for commercial or industrial development. Most of the existing retail, industrial and office development is located adjacent to the I-10 and SR-210 freeways and the historic Route 66/Foothill Boulevard.

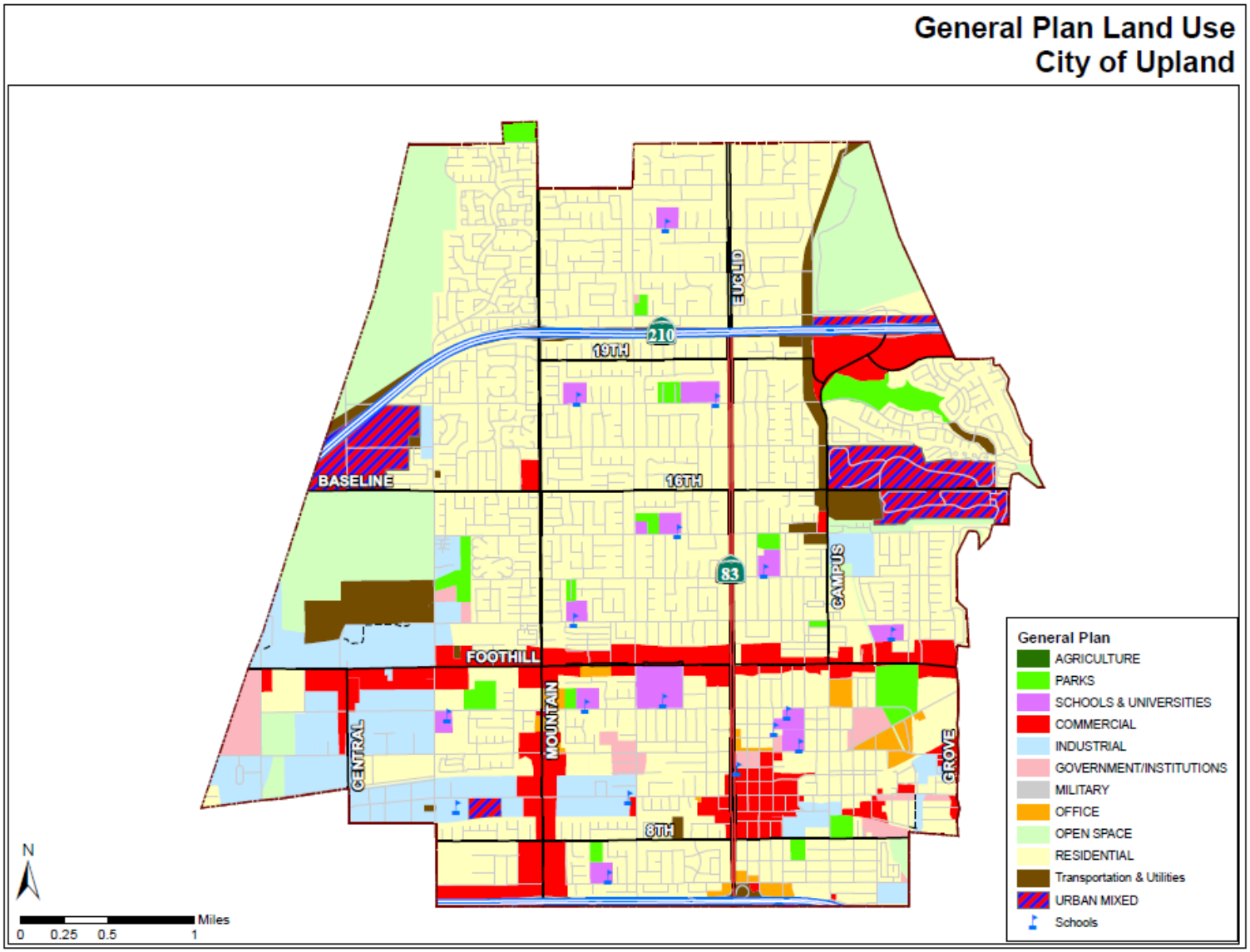
The city has a small downtown area, which is generally bounded by Euclid Ave to the west, Campus Avenue to the east, Arrow Highway to the north and 8th Street to the south. A significant port of the City's future development is planned to be concentrated in this area as it is close in proximity to the Metrolink station and the I-10 freeway. The City is currently developing an updated Downtown Specific Plan.

Existing Conditions:

The growth in the City of Upland's non-motorized system has been spread evenly across Class I, II and III facilities. The City now includes 6.33 miles of Class I, 21.43 miles of Class II and 11.65 miles of Class III facilities for a total of 39.41 miles. Since the last update to the Non-Motorized Transportation Plan, the City has averaged 3.94 miles of new infrastructure per year.

Growth/Past investment in system

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Upland. Based on planning level estimates, the value of the improvements implemented throughout the City is $7,576,250.


General Plan Land Use
City of Upland
EUCLID
210
19TH
BASELINE
16TH
83
CAMPUS
FOOTHILL
MOUNTAIN
CENTRAL
GROVE
8TH
N
Miles
0
0.25
0.5
1
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

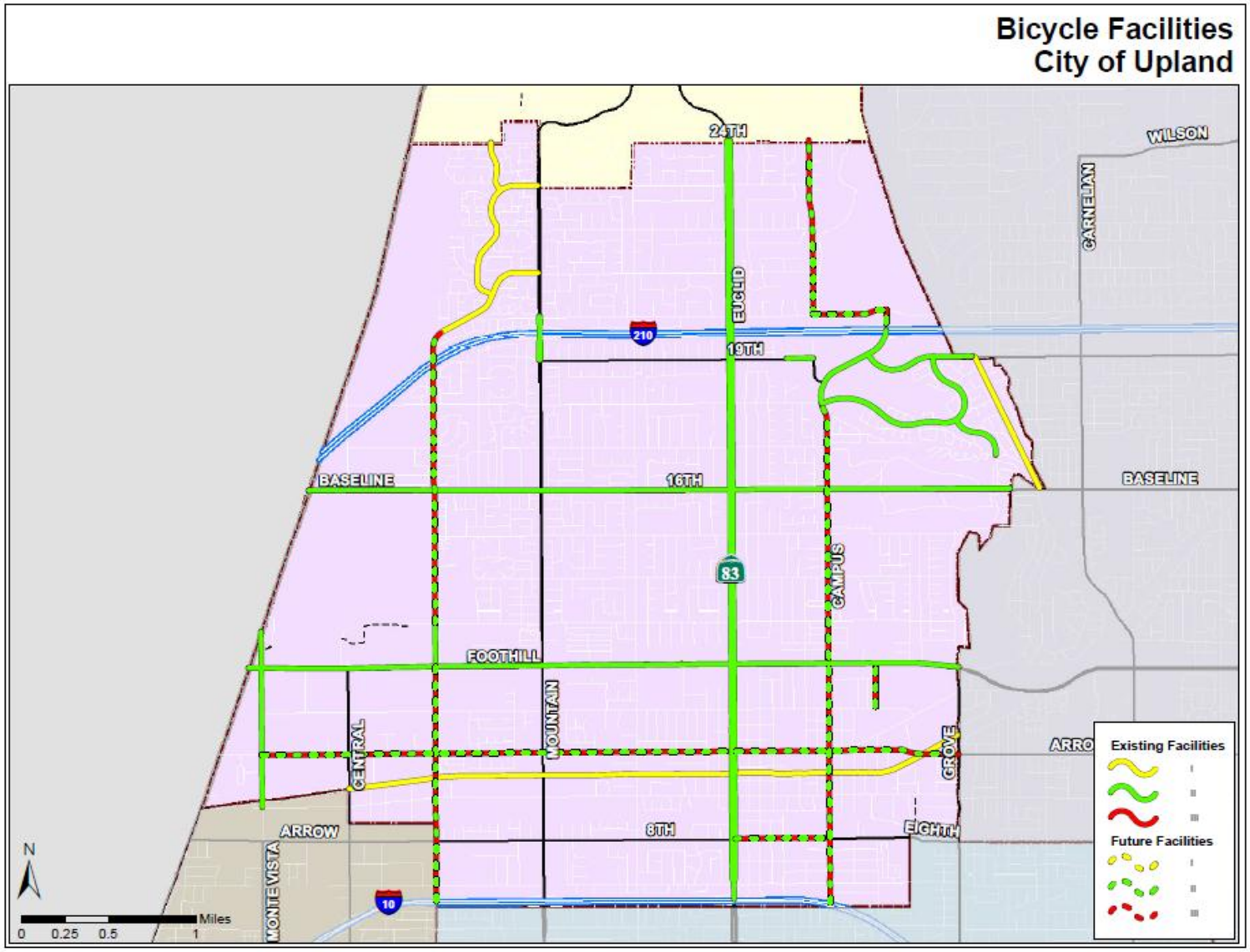

Bicycle Facilities
City of Upland
24TH
WILSON
CARNELIAN
EUCLID
210
19TH
BASELINE
16TH
BASELINE
83
CAMPUS
FOOTHILL
MOUNTAIN
CENTRAL
GROVE
ARRO
ARROW
8TH
EIGHTH
MONTE VISTA
10
N
0 0.25 0.5 1 Miles
Existing Facilities
Future Facilities

Table __:

Upland Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
8th St.	Euclid Ave.	Campus Ave.	III	0.54	$8,100
16th St.	SR-210	E. City Limit	II	4.03	$201,500
19th St.	850' w/o Campus Ave.	Campus Ave.	II	0.16	$8,000
19th St.	Campus Ave.	Cucamonga Creek	II	0.65	$32,500
20th St.	Campus Ave.	Campus Ave.	III	0.42	$6,300
Arrow Highway	Monte Vista Ave.	Grove Ave.	III	4.00	$60,000
Benson Ave.	13th St.	Foothill Blvd.	II	0.25	$12,500
Benson Ave.	Birkdale Ave.	13th St.	III	1.68	$25,200
Benson Ave.	Foothill Blvd.	I-10	III	1.35	$20,250
Benson Ave.	Mountain Ave.	Birkdale Ave.	I	0.71	$710,000
Campus Ave.	18th St.	I-10	III	2.88	$43,200
Campus Ave.	20th St.	SR-210	III	0.07	$1,050
Campus Ave.	24th St.	20th St.	III	1.00	$15,000
Campus Ave.	SR-210	18th St.	II	0.60	$30,000
Colonies Pkwy.	Campus Ave.	19th St.	II	1.28	$64,000
Cucamonga Creek	19th St.	Baseline Rd.	I	0.85	$850,000
Deakin Ave.	24th St.	Mildura Ave.	I	0.29	$290,000
Euclid Ave.	24th St.	I-10	II	8.61	$430,500
Foothill Blvd.	W. City Limit	Grove Ave.	II	4.08	$204,000
Hospital Pkwy.	Foothill Blvd.	11th St.	III	0.25	$3,750
Mildura Ave.	Mountain Ave.	Benson Ave.	I	0.92	$920,000
Monte Vista Ave.	N. City Limit	Richton St.	II	1.01	$50,500
Mountain Ave.	20th St.	19th St.	II	0.42	$21,000
Pacific Electric Trail	W. City Limit	E. City Limit	I	3.56	$3,560,000
Tanglewood Ave.	Colonies Pkwy.	Golf Club Dr.	II	0.34	$17,000
			Total	**39.41**	**$7,576,250**

Table __:

Upland Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
8th St.	Euclid Ave.	Campus Ave.	II	0.54	$27,000
20th St.	Campus Ave.	Campus Ave.	II	0.42	$21,000
Arrow Highway	Monte Vista Ave.	Grove Ave.	II	4.00	$200,000
Benson Ave.	Birkdale Ave.	13th St.	II	1.68	$84,000
Benson Ave.	Foothill Blvd.	I-10	II	1.35	$67,500
Campus Ave.	18th St.	I-10	II	2.87	$143,500
Campus Ave.	20th St.	SR-210	II	0.07	$3,500
Campus Ave.	24th St.	20th St.	II	1.00	$50,000
Hospital Pkwy.	Foothill Blvd.	11th St.	II	0.25	$12,500
8th St.	Euclid Ave.	Campus Ave.	II	0.54	$27,000
20th St.	Campus Ave.	Campus Ave.	II	0.42	$21,000
			Total	**11.64**	**$582,000**

Proposed Improvements

The future improvements identified by the City of Upland will upgrade the existing Class III facilities to Class II standards. When complete, the City will have upgraded a total of 11.64 miles of Class III infrastructure to Class II standards, improving the safety to cyclists and reinforcing their place on the City's arterial system.

The City of Upland has not identified any priority improvements. Improvements will be prioritized by the City Council in the future, possibly as part of the City's General Plan update.

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

The City of Upland Municipal Code - 17.22.090 Vehicle trip reduction measures – provides for the following related to non-motorized transportation:

A. Purpose. The purpose of this section is to promote the use of methods of transportation which are alternatives to the single occupant vehicle. These alternative methods are to be provided for in new development so as to meet congestion management and air quality goals at minimal cost and disruption to citizens, business and industry.

B. Applicability. Vehicle trip reduction measures shall apply to all new residential and nonresidential development which exceed the thresholds described in subsections (B)(1) through (3) of this section inclusive. Such measures shall be integrated into the existing development review process of the administrative committee and implemented as follows:

1. Multifamily Residential Projects Containing Ten or More Units.
    a. Bicycle parking facilities such as a bicycle rack or lockers shall be provided at a rate of one per 30 vehicle parking spaces with at least one three-bike rack.
    b. On-site pedestrian walkways and bicycle facilities to connect each building in a complex to public streets.
    c. Passenger loading area located close to building entrance(s) shall be provided for projects with 100 or more parking spaces. The loading areas shall spatially be the equivalent to a minimum of five parking spaces.

d. Transit improvements such as bus pullouts, bus pads, and bus shelters as determined to be appropriate by the administrative committee in cooperation with Omnitrans.

2. Single-Family Residential Projects Containing 500 or More Units. A telecommuting center shall be developed or contributions toward development of such a center on site shall be made to the reasonable satisfaction of the community development director.
3. Nonresidential Projects.
   a. Bicycle parking facilities such as bicycle racks or lockers shall be provided at a rate of one per 30-vehicle parking spaces with at least one bicycle rack capable of holding three bicycles.
   b. On-site pedestrian walkways and bicycle facilities to connect each building in a complex to public streets.
   c. Passenger loading area located close to building entrance(s) shall be provided for projects with 100 or more parking spaces. The loading areas shall spatially be the equivalent to a minimum of five parking spaces.
   d. A minimum of one shower facility for persons walking or bicycling to work for each project which meets the following thresholds:

Commercial	250,000 square feet
Industrial	325,000 square feet
Office	125,000 square feet
Hotels and motels	250 rooms

End of Trip Facilities

The City of Upland has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
Upland Metrolink Station	Train Station	Downtown Upland
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	96
Total # of Bicycle Fatalities from 2005-2009	1
Average # of Bicycle Collisions Per Year	19.2
Average Bicycle Collision Rate per 1000/year[1]	0.26
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Upland does not currently participate in any bicycle safety or education programs, but the City does work closely with the Upland Unified School District in its Safe Routes to School Program.

City of Victorville

Population

112,097

City Overview

Incorporated as a general law city in September 21, 1962, Victorville began its transition to a modern day community in about 1885, known then as the “Town of Victor” after Jacob Nash Victor, a construction superintendent for the California Southern Railroad (Santa Fe Railroad).

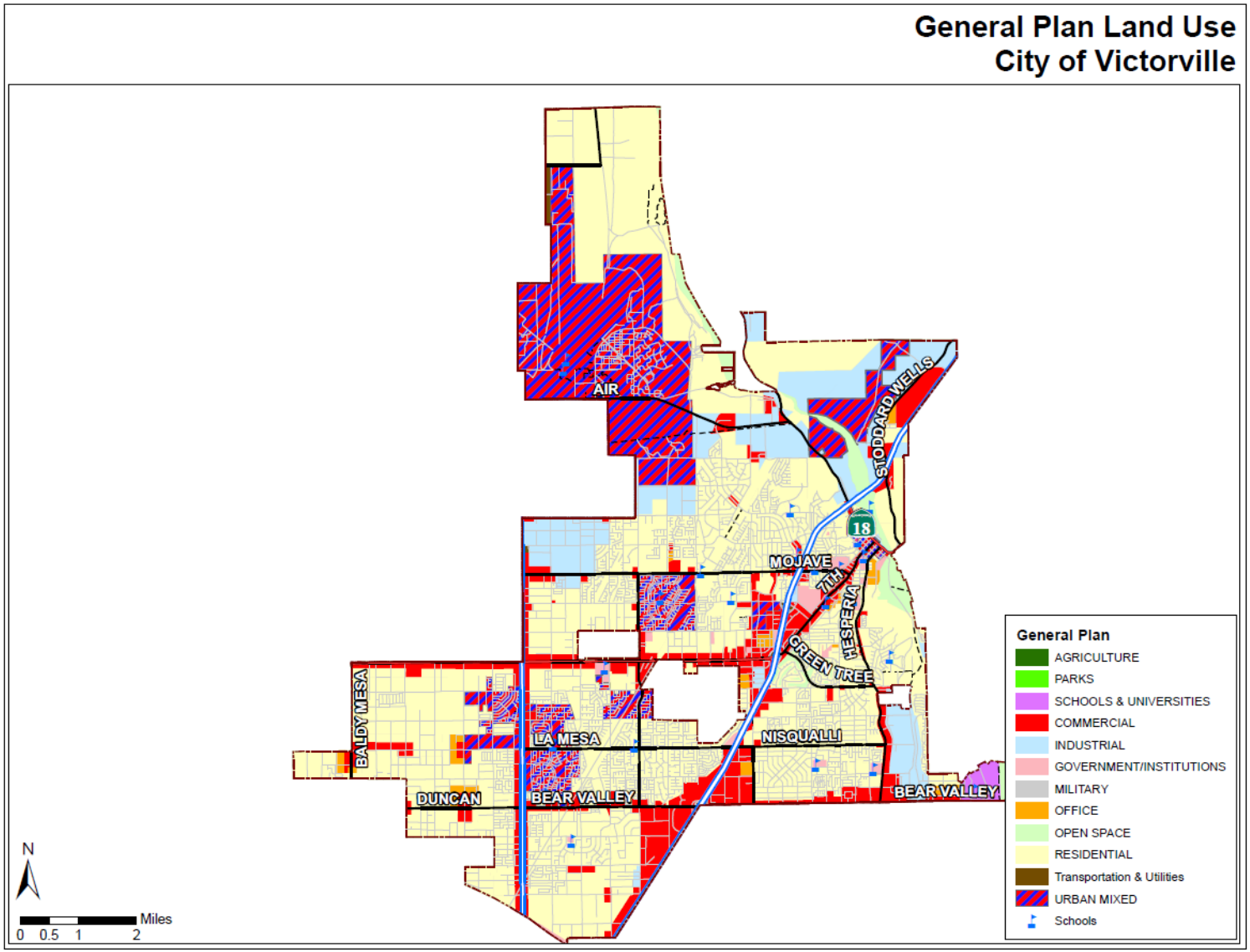
The City of Victorville is located in southwestern San Bernardino County, in the geographic sub-region of the southwestern Mojave Desert known as the Victor Valley and commonly referred to as the "High Desert" due to its approximate elevation of 2,900 feet above sea level. The Victor Valley is separated from other urbanized areas in Southern California by the San Bernardino and San Gabriel mountains.

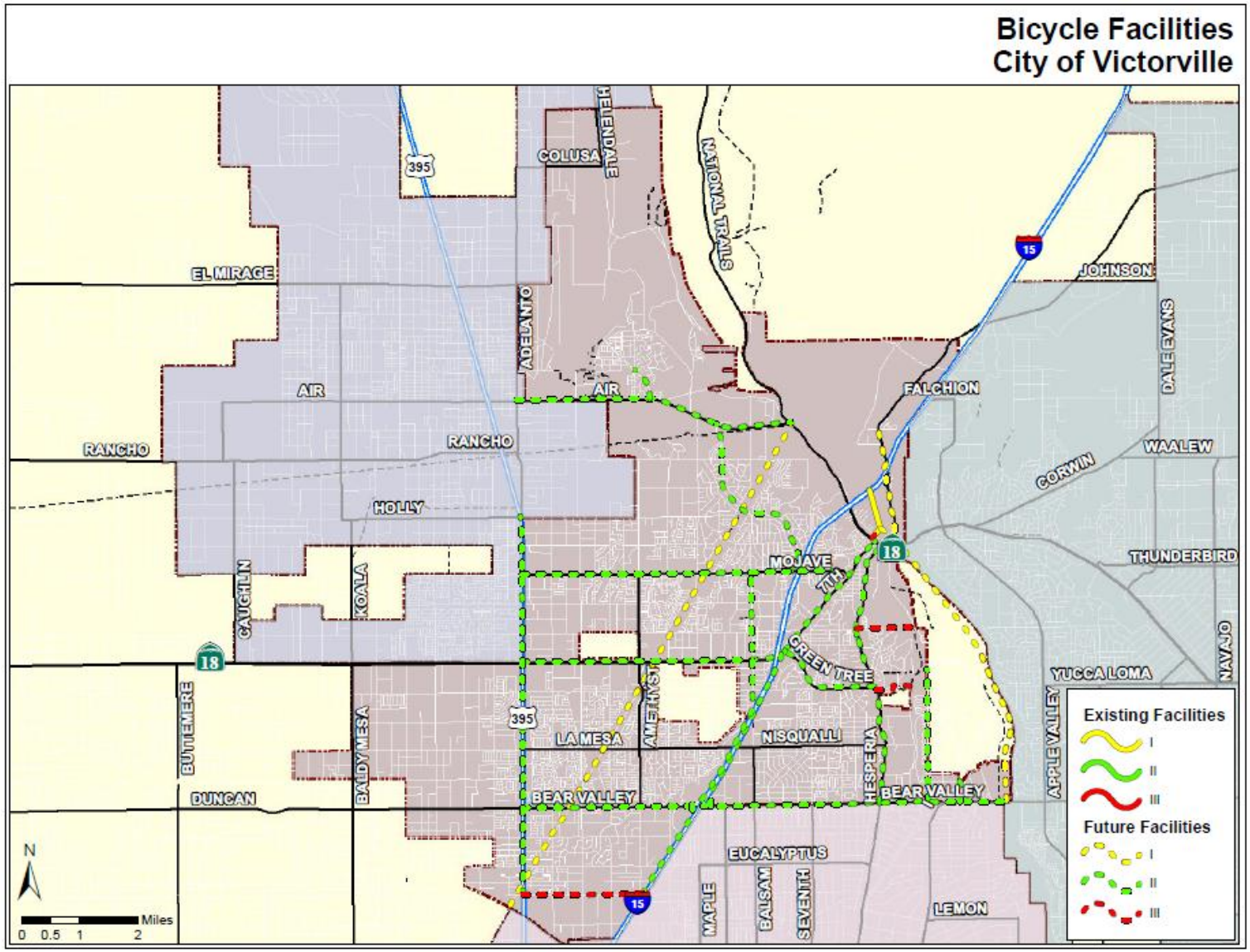
Land Use

The City’s general plan provides for a wide variety of residential land use designations which provides a broad range of dwelling unit densities and allows for a diversity of housing unit types. Residential designations include: Very Low Residential, Low Density Residential, Medium Density Residential, High Density Residential, Mixed Density, and Mixed-Use Density.

The City of Victorville has historically been and continues to be the primary commerce center of the Victor Valley. The City’s general plan provides for a wide variety of businesses to locate or expand in the City. Designated business categories include both commercial and industrial, and consist of the following: Commercial, Office Professional, Light Industrial and Heavy Industrial. The Mixed-Use High Density designation allows for business components, including retail, office and civic.

The map on page ___ shows the General Plan land use designations for the City of Victorville.


General Plan Land Use
City of Victorville
AIR
STODDARD WELLS
18
MOJAVE
7TH
HESPERIA
GREEN TREE
BALDY MESA
LA MESA
NISQUALLI
DUNCAN
BEAR VALLEY
BEAR VALLEY
N
Miles
0 0.5 1 2
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools


Bicycle Facilities
City of Victorville
EL MIRAGE
AIR
RANCHO
HOLLY
COLUSA
HELENDALE
ADELANTO
NATIONAL TRAILS
JOHNSON
DALE EVANS
FALCHION
CORWIN
WAALEW
THUNDERBIRD
MOJAVE
7TH
GREEN TREE
YUCCA LOMA
NAVAJO
APPLE VALLEY
CAJON
KOALA
CAUCHILLA
BUTTERMERE
BALDY MESA
LA MESA
ALTA VISTA
N SQUALLI
HESPERIA
BEAR VALLEY
DUNCAN
EUCALYPTUS
MAPLE
BALSAM
SEVENTH
LEMON
395
15
18
Existing Facilities
I
II
III
Future Facilities
I
II
III
N
Miles
0 0.5 1 2

Existing Conditions:

The City of Victorville has constructed one demonstration segment of the Mojave Riverwalk Class I facility. The City is also in the process of the preparing the environmental document for the remainder of the project. Ultimately, the Riverwalk will connect northern Victorville to the Victor Valley Community College when completed.

In addition to the work on Mojave Riverwalk, the City prepared a focused non-motorized plan, which was adopted by the City Council in June 2010.

Table __:

Victorville Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Mojave Riverwalk	I-15	6th St	I	0.83	$830,000
			Total	**31.99**	**$830,000**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Victorville has constructed 0.83 miles of Class I facilities at a rate of 0.09 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Victorville. Based on planning level estimates, the value of the improvements implemented throughout the City is $830,000.

Proposed Improvements

Future improvements to the non-motorized network for the City of Victorville will continue along the major transportation corridors throughout the City. All future improvements focus on further development of additional Class II facilities. A table of future improvements is included in Table __ below. When complete, the City will have constructed an additional 27.97 miles of Class II and Class III, providing additional internal connectivity to the residents of Highland and increased connectivity to communities in the East San Bernardino Valley.

Table __:

Victorville Proposed Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
6th St.	6th St. Trailhead	D St.	III	0.09	$1,350
7th St.	D St.	Palmdale Rd.	II	2.46	$123,000
Air Expressway	Adelanto Rd.	National Trails Hwy.	II	4.82	$241,000
Amargosa Rd.	Mojave Dr.	Mesa St.	II	6.12	$306,000
Bear Valley Rd.	Highway 395	Mojave River	II	8.28	$414,000
Coad Rd.	Hesperia Rd.	BNSF Railroad	III	0.64	$9,600
George Blvd.	Air Expressway	Nevada Ave.	II	0.59	$29,500
Green Tree Blvd.	7th St.	Hesperia Rd.	II	1.84	$92,000
Hesperia Rd.	D St.	Bear Valley Rd.	II	4.90	$245,000
Highway 18	6th St.	E. City Limit	II	0.63	$31,500
Highway 395	Hopland St.	Mesa St.	II	6.52	$326,000
Mariposa Rd.	Bear Valley Rd.	Palmdale Rd.	II	2.91	$145,500
Mesa St.	Highway 395	Amargosa Rd.	III	2.05	$30,750
Mojave Dr.	Highway 395	7th St.	II	5.66	$84,900
Mojave Riverwalk	6th St.	Bear Valley Rd.	I	5.45	$5,450,000
Palmdale Rd.	Highway 395	7th St.	II	4.57	$68,550
Power Line Easement	California Aqueduct	Air Expressway	I	9.60	$9,600,000
Ridgecrest Rd.	Yates Rd.	Bear Valley Rd.	II	2.26	$33,900
Seneca Rd.	Hesperia Rd.	BNSF Railroad	III	1.02	$15,300
Spring Valley Pkwy.	Bear Valley Rd.	Huerta Rd.	II	0.36	$5,400
Stoddard Wells Rd.	Highway 18	Dante St.	I	2.14	$2,140,000
Village Dr.	Air Expressway	Mojave Dr.	II	3.39	$50,850
			Total	**76.30**	**$19,444,100**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Mojave Riverwalk	6th St.	Bear Valley Rd.	I	5.45	$5,450,000
			Total	5.45	$5,450,000

The priority bicycle improvement for the City of Victorville is the Mojave Riverwalk. When finished the Mojave Riverwalk will provide a continuous Class I bikeway adjacent to the Mojave River in the City of Victorville. The facility will connect north Victorville to the Victor Valley Community College.

Municipal Code

The municipal code for the City of Victorville does not currently include the mandatory requirement for the inclusion of non-motorized serving infrastructure as part of the site design process.

End of Trip Facilities

The City of Victorville has bike racks dispersed throughout the City, typically at retail centers, schools and multi-unit housing complexes.

Multimodal Connectivity

The City of Victorville has the following multimodal facilities that interface with the non-motorized transportation system.

Table __:

Multimodal Connectivity

Facility	Facility Type	Facility Location
Victorville Blvd PNR Lot	Ride Share Lot	Bear Valley Rd & I-15
VVCC PNR	Ride Share Lot	Bear Valley & Fish Hatchery
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	78
Total # of Bicycle Fatalities from 2005-2009	2
Average # of Bicycle Collisions Per Year	15.6
Average Bicycle Collision Rate per 1000/year[1]	0.18
Index (relative to statewide average of __/1000[2]	

Notes:
1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City of Victorville does not currently participate in any bicycle safety or education programs.

City of Yucaipa

Population

51,476

City Overview

Yucaipa is located in the eastern portion of the San Bernardino Valley area, at the foot of the San Bernardino Mountains, between the Cities of Redlands and Calimesa. The City is bounded on the northwest by the Crafton Hills, on the south by the City of Calimesa and on the north and east by mountainous terrain in unincorporated areas of San Bernardino County.

The topography of the City begins at an approximate elevation of 2,000 feet at the west end, adjacent to the point at which the 10 freeway enters Yucaipa from the west. Elevations increase in the northeast and eastern portions of the City to approximately 4,000+feet, which represents an elevation change of 2,000 feet. Much of the area on the northwest portion of the City above 2,400 feet has been designated by the City as an open space preserve.

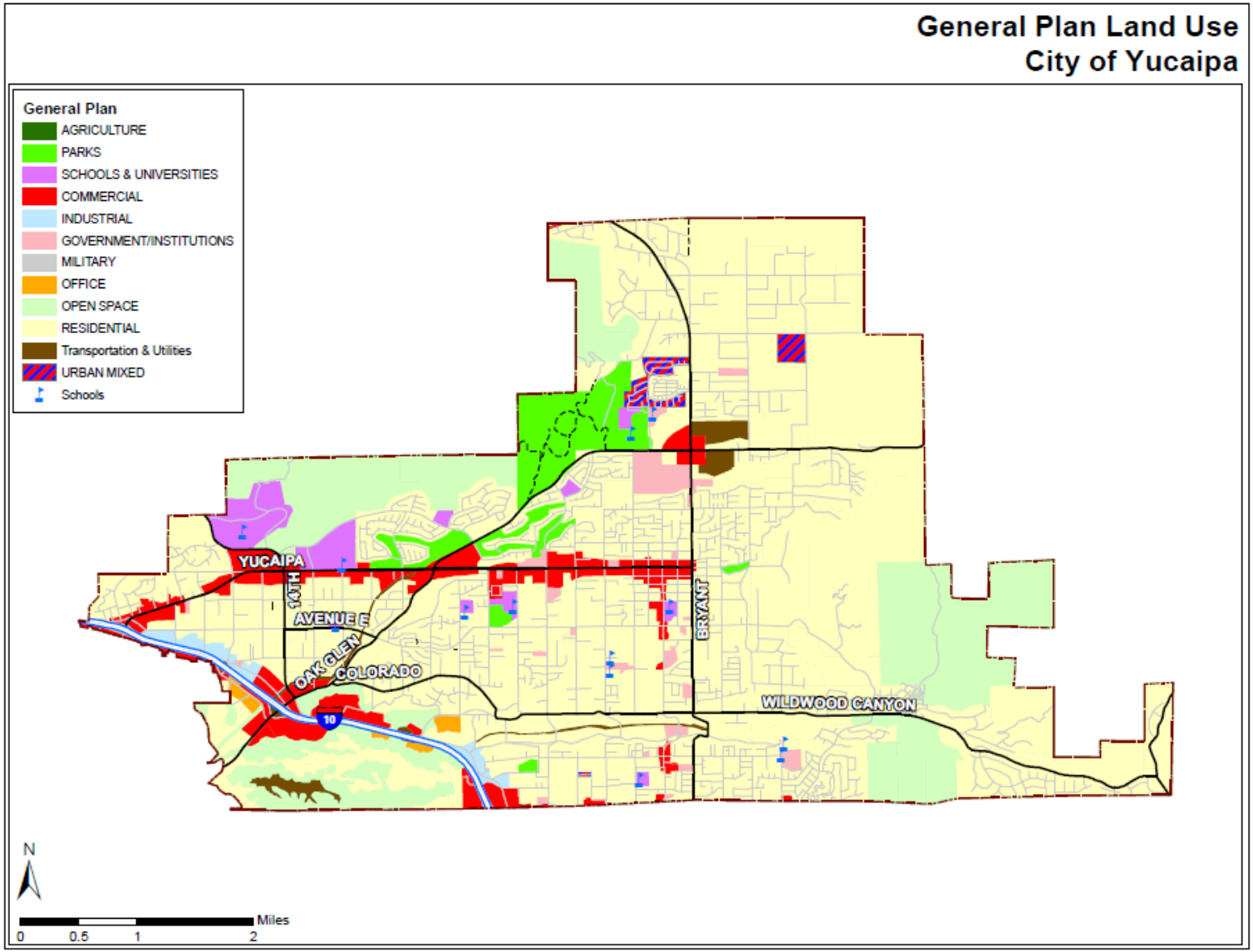
Land Use

The map on page ___ shows the current and future land use patterns in the City of Yucaipa. The existing land uses within the City can be best summarized as a diversity of land uses throughout with a very low percentage of commercial and industrial land uses. The industrial and commercial areas have been developed in strips as opposed to centers or nodes of development.

Existing Conditions:

Yucaipa's non-motorized bicycle network has expanded significantly since the last update to the Non-Motorized Transportation Plan. The City now enjoys one Class I bikeway along a section of Oak Glen Road for a stretch of 2.06 miles.

The City has also striped 16.02 miles of Class II bike lanes, mostly on major transportation corridors throughout the City. The bike lanes provide connectivity to commercial, residential, educational, public transportation centers and recreational amenities throughout the city.


General Plan Land Use
City of Yucaipa
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools
YUCAIPA
AVENUE E
OAK GLEN
COLORADO
BRYANT
WILDWOOD CANYON
10
N
Miles
0
0.5
1
2

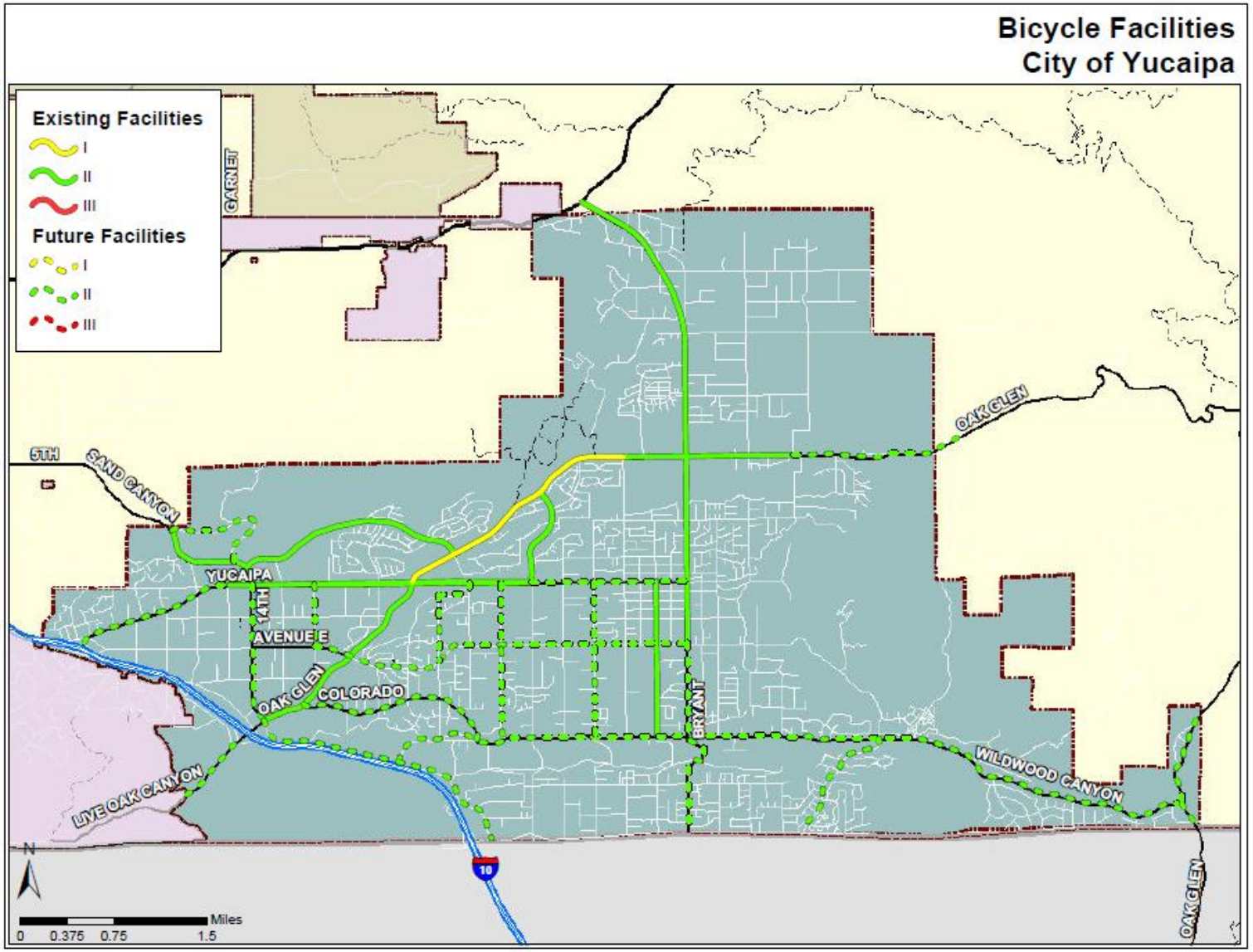

Bicycle Facilities
City of Yucaipa
Existing Facilities
I
II
III
Future Facilities
I
II
III
GARNET
5TH
SAND CANYON
YUCAIPA
14TH
AVENUE E
OAK GLEN
COLORADO
OAK GLEN
BRYANT
WILDWOOD CANYON
LIVE OAK CANYON
OAK GLEN
10
N
Miles
0
0.375
0.75
1.5

Table __:

Yucaipa Existing Conditions

Street/Path	From	To	Class	Mileage	Cost
5th St	Oak Glen Rd	Yucaipa Blvd	II	0.82	$41,000
Bryant St	SR-38	Avenue E	II	3.91	$195,500
California St	Avenue D	Yucaipa Blvd	II	1.25	$62,500
Chapman Heights Rd	Sand Canyon Rd	Oak Glen Rd	II	1.86	$93,000
Oak Glen Rd	2nd St	Yucaipa Blvd	I	2.06	$2,060,000
Oak Glen Rd	Bryant St	2nd St	II	0.50	$25,000
Oak Glen Rd	Cherry Croft Dr	Bryant St	II	0.87	$43,500
Oak Glen Rd	Yucaipa Blvd	Calimesa Blvd	II	1.70	$85,000
Sand Canyon Rd	N City Limit	Yucaipa Blvd	II	0.92	$46,000
Yucaipa Blvd	15th St	5th St	II	4.19	$209,500
			Total	**18.08**	**$2,861,000**

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the City of Yucaipa has constructed 2.1 miles of Class I and 13.9 miles of Class II facilities at a rate of 2.01 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above constitute a significant investment into the non-motorized transportation infrastructure of Yucaipa. Based on planning level estimates, the value of the improvements implemented throughout the City are $2,861,000.

Proposed Improvements

Future improvements to the non-motorized network for the City of Yucaipa will continue along the major transportation corridors throughout the City. All future improvements focus on further development of additional Class II facilities. A table of future improvements is included in Table __ below.

The City of Yucaipa has identified two projects as priorities, and the projects are included in Table __ below. The projects focus on finishing the Class II improvements along Yucaipa Blvd. When complete, the City will have constructed an additional 2.5 miles of Class II improvements along the primary arterial roadway of the City.

Table __:

Yucaipa Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
12th St	Yucaipa Blvd	Ave E	II	0.50	$25,000
14th St	Yucaipa Blvd	Oak Glen Rd	II	1.11	$55,500
3rd St	Yucaipa Blvd	Wildwood Canyon Rd	II	1.25	$62,500
6th St	Yucaipa Blvd	Wildwood Canyon Rd	II	1.26	$63,000
7th St	Yucaipa Blvd	Washington Dr	II	0.09	$4,500
8th St	Washington Dr	Ave E	II	0.53	$26,500
Ave E	12th St	Bryant St	II	3.10	$155,000
Bryant St	Ave E	County Line Rd	II	1.68	$84,000
Calimesa Blvd	Oak Glen Rd	S City Limit	II	2.26	$113,000
Campus Dr	Sand Canyon Rd	Sand Canyon Rd	II	1.10	$55,000
Colorado St	Oak Glen Rd	Wildwood Canyon Rd	II	1.64	$82,000
Live Oak Rd	W City Limit	I-10	II	0.62	$31,000
Mesa Grande Dr	Wildwood Canyon Rd	County Line Rd	II	1.05	$52,500
Oak Glen Rd	Cherry Croft Dr	e/o Martell Ave	II	1.38	$69,000
Oak Glen Rd	Oak Glen Rd	Scenic Crest Dr	II	0.51	$25,500
Washington Dr	8th St	7th St	II	0.25	$12,500
Wildwood Canyon Rd	Calimesa Blvd	Oak Glen Rd	II	6.65	$332,500
Yucaipa Blvd	5th St	Bryant St	II	1.25	$62,500
Yucaipa Blvd	I-10	15th St	II	1.28	$64,000
			Total	**27.51**	**$1,375,500**

Table __:

Priority Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
Yucaipa Blvd	5th St	Bryant St	II	1.25	$62,500
Yucaipa Blvd	I-10	15th St	II	1.28	$64,000
			Total	**2.53**	**$126,500**

Municipal Code

Yucaipa Municipal Code 10.08.010, Chapter 10.08 Transportation Control Sub-regional Implementation Program includes several design standards for residential and non-residential development pertaining to the provision of bicycle parking. The design standards are as follows:

- *Bicycle Parking Facilities* – New non-residential and multi-family (of 10 or more units) development or remodels of existing complexes (when discretionary review is required) are required to include parking racks or secured lockers at a rate of 1 per 30 parking spaces with a minimum of a three-bike rack.

- *Pedestrian and Bicycle Connections to Public Streets* – New non-residential and multi-family (of 10 or more units) are required to provide on-site pedestrian walkways an bicycle facilities to connect each building in the development to public streets.
- *Shower Facilities* – New non-residential development meeting CMP thresholds (250 or more peak hour trips) are required to provide shower facilities for persons bicycling or walking to work at a minimum of one shower facility accessible to both men and women.

End of Trip Facilities

The City of Yucaipa has bike racks dispersed throughout the City, typically at retail centers and multi-unit housing complexes.

Multimodal Connectivity

The City of Yucaipa has the following multimodal facilities that interface with the non-motorized transportation system.

Table __:

Multimodal Connectivity

Facility	Facility Type	Facility Location
Yucaipa Blvd PNR Lot	Ride Share Lot	31341 Hampton Rd
Yucaipa Transit Center	Multi-Modal Facility	34276 Yucaipa Blvd
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	41
Total # of Bicycle Fatalities from 2005-2009	0
Average # of Bicycle Collisions Per Year	8.2
Average Bicycle Collision Rate per 1000/year[1]	0.17
Index (relative to statewide average of __/1000[2]	

Notes:

1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The City sponsors an annual Bike Safety Rodeo. The activities are geared for kids from ages 3 - 14. The event features complimentary bike and helmet inspections, as well as a bicycle safety course food and giveaways.

In addition, the City also partners with the Yucaipa-Calimesa Joint Unified School District and the San Bernardino County Department of Public Health's Safe Routes to School Program. The City assists by conducting public workshops at various elementary schools throughout the City, by providing bicycle and pedestrian safety/education programs and by encouraging walking and bicycling to and from school.

Town of Yucca Valley

Population

21,292

City Overview

The Town of Yucca Valley comprises an important administrative, commercial and business center for the Morongo Basin and Lower Mojave Desert region. Located in the south-central portion of San Bernardino County and a transitional area between the high and low deserts of southeastern California, the Town sits at a pivotal location in terms of the region's geology. Both resulting climate and geotechnical activity have shaped Yucca Valley.

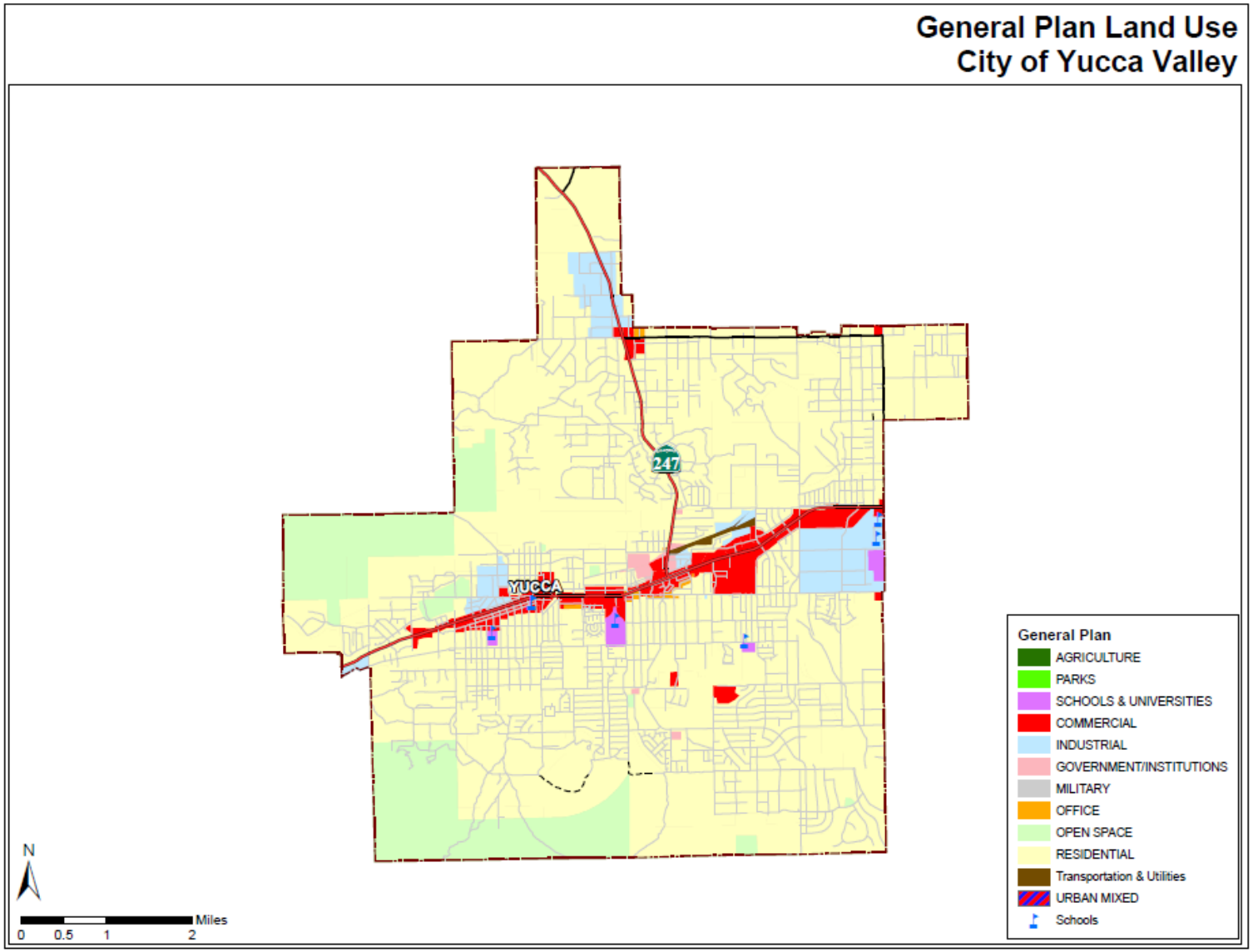
Land Use

The Town encompasses over 38 square miles. Historically, development has been focused along, and been most intense, adjacent to State Highway 62, with progressively less dense and more scattered residential development north and south of Highway 62. Industrial land uses are found in a few scattered locations, and the Highway 62 corridor serves the Town and the region as an integrated mix of commercial businesses.

The goals identified in Yucca Valley's General plan include maintaining a balance of mixed, functionally integrated land uses which meet general, social and economic needs and promoting a well-rounded community of desirable neighborhoods with a strong employment base and a variety of community facilities.

Existing Conditions:

The Town of Yucca Valley's bicycle transportation system is comprised solely of Class III bike routes. The 23.41 miles of bike routes provide access to the both the north and south sections of Town, crossing SR-62 and SR-247.


General Plan Land Use
City of Yucca Valley
247
YUCCA
N
Miles
0
0.5
1
2
General Plan
AGRICULTURE
PARKS
SCHOOLS & UNIVERSITIES
COMMERCIAL
INDUSTRIAL
GOVERNMENT/INSTITUTIONS
MILITARY
OFFICE
OPEN SPACE
RESIDENTIAL
Transportation & Utilities
URBAN MIXED
Schools

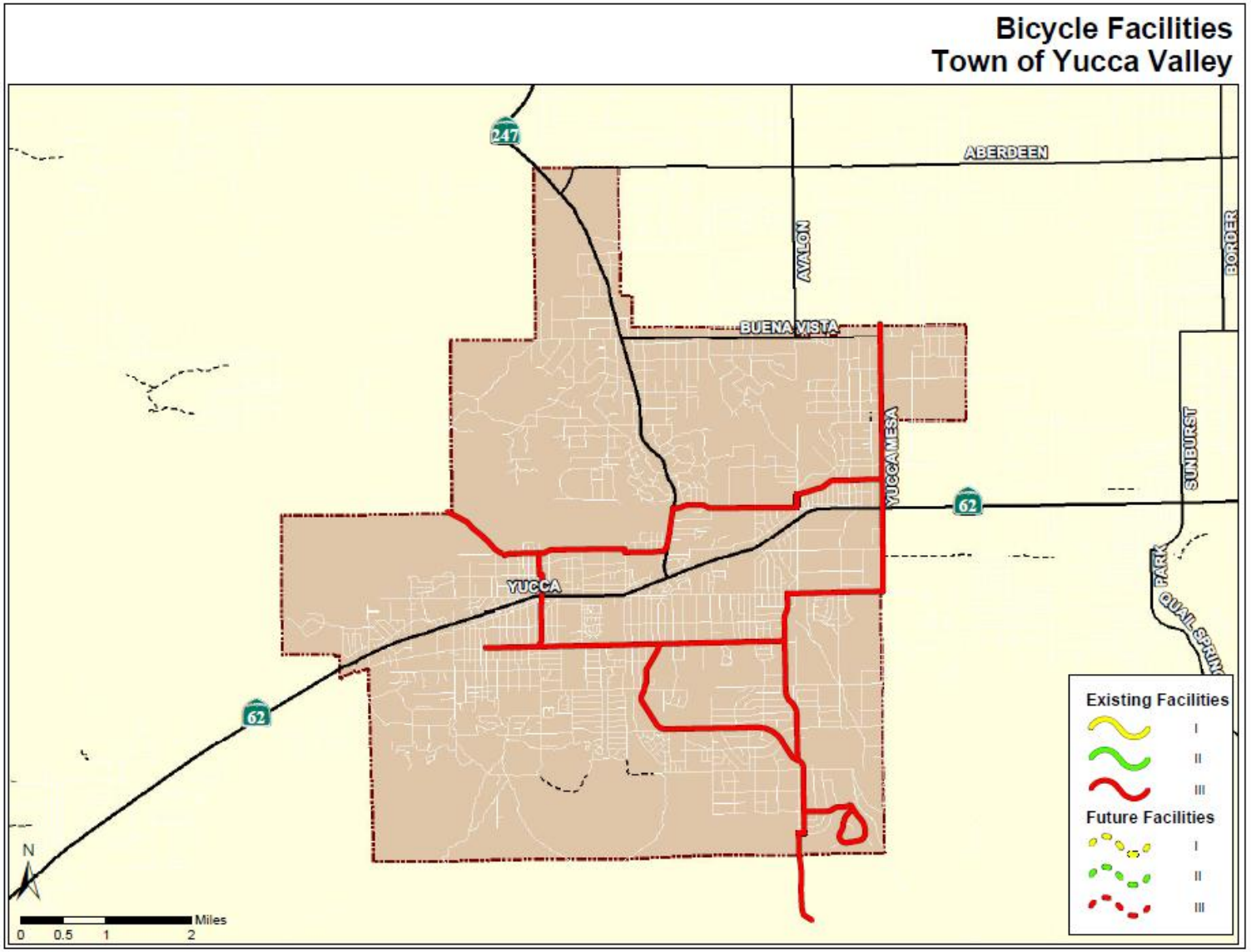

Bicycle Facilities
Town of Yucca Valley
247
ABERDEEN
AVALON
BORDER
BUENA VISTA
YUCCA MESA
SUNBURST
62
YUCCA
PARK
QUAIL SPRING
62
N
Miles
0 0.5 1 2
Existing Facilities
I
II
III
Future Facilities
I
II
III

Table __:

Yucca Valley Existing Conditions

Street/Path	From	To	Class	Mileage	Est. Cost
Acoma Tr.	Onaga Tr.	SR-62	III	0.60	$9,000
Avalon Ave.	Paxton Rd.	Barron Dr.	III	0.16	$2,400
Barron Dr.	Avalon Ave.	Yucca Mesa Rd.	III	1.04	$15,600
Blackrock Canyon Rd.	San Marino Dr.	End	III	1.08	$16,200
Carmelita Circle	Santa Barbara Dr.	Santa Barbara Dr.	III	1.15	$17,250
Joshua Ln.	Onaga Tr.	San Marino Dr.	III	3.76	$56,400
La Contenta Rd.	SR-62	Yucca Trail	III	0.99	$14,850
Mohawk Tr.	SR-62	Sunnyslope Dr.	III	0.53	$7,950
Onaga Tr.	Hopi Tr.	Palomar Ave.	III	3.50	$52,500
Palomar Ave.	Yucca Trail.	Joshua Ln.	III	1.99	$29,850
Paxton Rd.	SR-247	Avalon Ave.	III	1.47	$22,050
Pioneertown Rd.	Sunnyslope Dr.	N. Town Limits	III	0.82	$12,300
San Marino Dr.	Joshua Ln.	Black Rock Canyon Rd.	III	0.06	$900
Santa Barbara Dr.	Joshua Ln.	Carmelita Circle.	III	0.56	$8,400
SR-247	Sunnyslope Dr.	Paxton Rd.	III	0.47	$7,050
Sunnyslope Dr.	Pioneertown Rd.	SR-247	III	1.97	$29,550
Yucca Mesa Rd.	SR-62	N. Town Limits	III	2.14	$32,100
Yucca Trail	La Contenta Rd.	Palomar Ave.	III	1.12	$16,800
			Total	**23.41**	$351,150

Growth/Past investment in system

Since the San Bernardino County Non-Motorized Transportation Plan was first prepared in 2001, the Town of Yucca Valley has designated 23.4 miles of Class III facilities within the Town at a rate of 2.3 miles per year.

Past Investment in Non-Motorized Infrastructure

The improvements included in Table __ above demonstrate a commitment to non-motorized transportation within the Town of Yucca Valley. Based on planning level estimates, the value of the improvements implemented throughout the Town is $351,000.

Proposed Improvements

The Town of Yucca Valley has not identified any proposed future non-motorized improvements.

Table __:

Yucca Valley Future Improvements

Street/Path	From	To	Class	Mileage	Est. Cost
n/a	n/a	n/a	n/a	n/a	n/a
			Total	**n/a**	**n/a**

Municipal Code

The Town of Yucca Valley has not adopted Municipal Code specific to non-motorized transportation or the placement of non-motorized transportation facilities.

End of Trip Facilities

The Town of Yucca Valley has bike racks dispersed throughout the Town, typically at retail centers, schools and multi-unit housing complexes. The Town of Yucca Valley also possesses bicycle lockers at the park-and-ride facility located at the intersection of SR-62 and Kickapoo Trail.

Multimodal Connectivity

Table __:

Location of Multi-Modal Connections

Facility	Facility Type	Facility Location
Yucca Valley Transfer Center	Bus Transfer Center	Yucca Trail/Airway
Yucca Valley PNR	Ride Share Lot	7485 Kickapoo Trail
City-wide Bus Stops	Bus Stops	Throughout City

Collisions Involving Bicyclists

Table __:

Data for Collisions Involving Bicyclists

Parameter	Collision Rate
Total # of Bicycle Collisions from 2005-2009	12
Total # of Bicycle Fatalities from 2005-2009	1
Average # of Bicycle Collisions Per Year	2.4
Average Bicycle Collision Rate per 1000/year[1]	0.12
Index (relative to statewide average of __/1000[2]	

Notes:
1. Rate is calculated using SWITRS collision data and population figures by the California Department of Finance
2. The index is based on the ratio of the local collision rate and the statewide collision rate. An index greater than on (1.0) indicates that the local accident rate is higher than the state average.

Safety and Education Programs

The Town of Yucca Valley does not currently participate in any bicycle safety or education programs.

6.0 Design Guidelines

This chapter provides details on the recommended design and operating standards for the San Bernardino County Bikeway System.

The Caltrans Design Manual, Chapter 1000 – Bikeway Planning and Design establishes the standards for bicycle facility design within the state of California. These standards are, for the most part, consistent with the American Association of State Highway and Transportation Officials (AASHTO) Guidelines for the Development of Bicycle Facilities. The Caltrans standards provide the primary basis for the design recommendations that follow.

6.1 Definitions

The following section summarizes key operating and design definitions.

- **Bicycle**: A device, upon which any person may ride, propelled exclusively by human power through a belt, chain, or gears, and having two wheels in a tandem arrangement.

- **Class I Bikeway (Shared Use Path or Bike Path)**: A bikeway physically separated from any street or highway. Shared Use Paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. For an example, see the figure immediately below.

Figure 6.1 – Class I Bikeway Information

Class II Bikeway (Bike Lane): A portion of roadway that has been designated by striping, signaling, and pavement markings for the preferential or exclusive use of bicyclists. For an example, see the graphics immediately below.

Figure 6.2 – Class II Bikeway Information

Class III Bikeway (Bike Route): A generic term for any road, street, path, or way that in some manner is specifically designated for bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles, or are to be shared with other transportation modes. For an example, see the graphics immediately below.

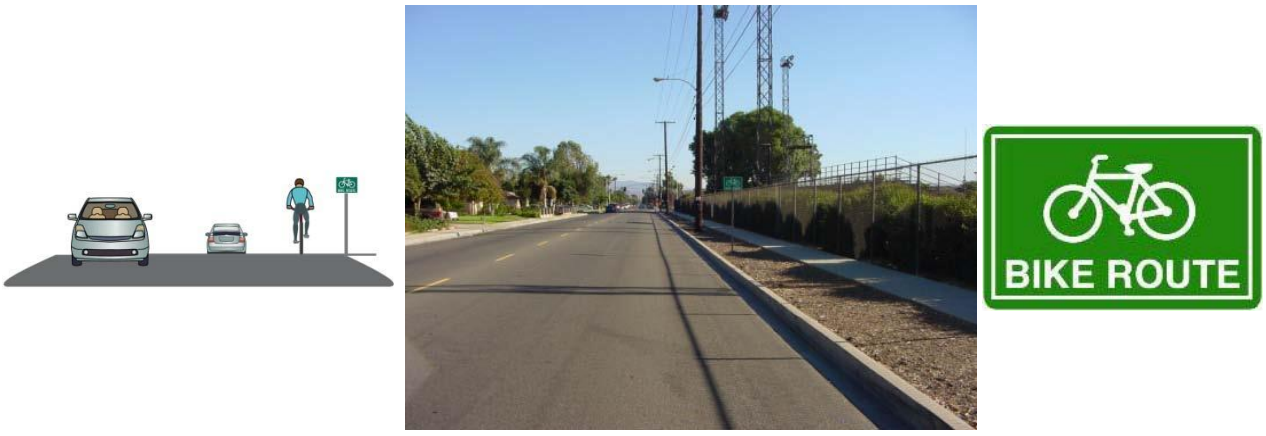


Figure 6.3 – Class III Bikeway Information

Signed Shared Roadway or Signed Bike Route: A shared roadway that has been designated by signing as a preferred route for bicycle use. These are Class III facilities under the Caltrans Design Standards.

6.2 Bicycle Design Recommendations

The following guidelines present the recommended minimum design standards and other recommended ancillary support items for shared use paths, bike lanes, and signed shared roadways. All bikeways should meet minimum Caltrans/AASHTO standards and/or the Manual on Uniform Traffic Control Devices (MUTCD). Where possible, it may be desirable to exceed the minimum standards for bike paths or bike lane widths, signage, lighting, and traffic signal

detectors. In cases where Caltrans and AASHTO guidelines conflict, Caltrans Design Standards will take precedence.

6.2.1 Class I Bike Path Facilities

1. All shared use paths should generally conform to the design recommendation by Caltrans/AASHTO/MUTCD.

2. Class I bike paths should generally by designed as separated facilities away from parallel streets. They are commonly planned along rights-of-way such as waterways, utility corridors, flood control access roads, railroads, and the like that offer continuous separated riding opportunities. Special signage to separate different uses may be installed as per MUTCD guidelines seen in the figure below.

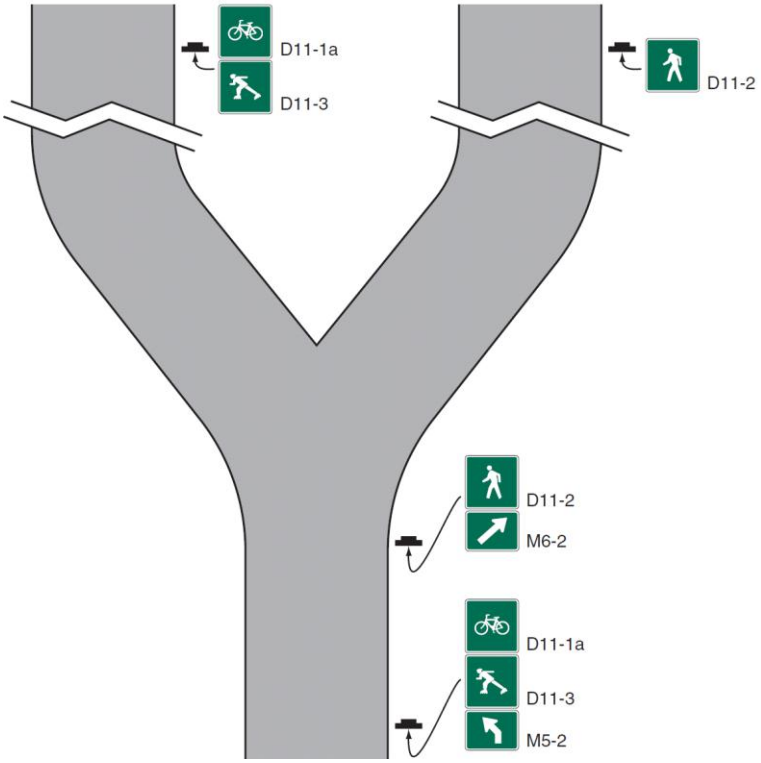


Figure 6.4 – Mode-specific Guide Signs for Shared-use Paths

3. Bike paths should have a minimum of eight feet of pavement, with at least two feet of unpaved shoulders for pedestrians/runners, or a separate tread way where feasible. Paved width of twelve feet is preferred. Direct pedestrians to right side of pathway with signing and/or stenciling.

4. Multi-use trails and unpaved facilities that serve primarily a recreation rather than a transportation function and will not be funded with federal or state transportation dollars

may not need to be designed to Caltrans/AASHTO/MUTCD standards.

5. Both AASHTO and Caltrans recommend against using most sidewalks for bike paths. This is due to conflicts with driveways and intersections. Where sidewalks are used as bike paths, they should be placed in locations with few driveways and intersections, should be properly separated from the roadway, and should have carefully designed intersection crossings.

6. Shared use path crossings of roadways require preliminary review. A prototype design is presented in the abovementioned Definitions section.

7. Crossings of roadways, other than at intersections, should be carefully engineered to accommodate a safe and visible crossing for users. The design needs to consider the width of the roadway, whether it has a median, and the roadway's average daily and peak-hour traffic volumes. Crossings of low-volume streets may require simple stop signs. Generally speaking, bike paths that cross roadways with Average Daily Trips (ADTs) over 15,000 vehicles will require signalization, grade separation, flashing LED beacons, crossing islands, other devices, or a combination of such features. Roundabouts can provide desirable treatment for a bike path intersecting with roadways where the bike path is not next to a parallel street.

Figure 6.5 – Combined Bike/Pedestrian Crossing Sign

8. Landscaping should generally consist of low water-consuming native vegetation and should have the least amount of debris.

9. Lighting should be provided where commuters will likely use the bike path in the evenings.

10. Barriers at pathway entrances should be clearly marked with reflectors and be ADA accessible (minimum five feet clearance).

11. Bike path construction should take into account vertical requirements, the impacts of maintenance, and emergency vehicles on shoulders.

12. Provide adequate trailhead parking and other facilities such as restrooms, and drinking fountains at appropriate locations.

6.2.2 Class II Bike Lane Facilities

The following guidelines should be used when designing Class II bikeway facilities. These guidelines are provided by the Caltrans Highway Design Manual, Chapter 1000, AASHTO, MUTCD, and the Caltrans Traffic Manual.

1. Class II Bike Lane facilities should conform to the minimum design standard of five feet in width in the direction of vehicle travel adjacent to the curb lane. Where space is available, a width of 6 to 8 feet is preferred, especially on busy arterial streets, on grades, and adjacent to parallel parking.

2. Under certain circumstances, bike lanes may be four feet in width. Situations where this is permitted include the following.

    - Bike lanes located between through traffic lanes and right turn pockets at intersection approaches. See Figure 5.8.

    - Where there is no parking, the gutter pan is no more than 12” wide, and the pavement is smooth and flush with the gutter pan.

    - Where there is no curb and the pavement is smooth to the curb.

3. “Bike Lane” signage, as shown directly below, shall be posted after every significant intersection along the route of the bike lane facility. Directional signage may also accompany this sign to guide bicyclists along the route. If a bike lane exists where parking is prohibited, “no parking” signage may accompany bike lane signage.

Figure 6.6 – Bike Lane Sign

4. Bike lanes should be striped with a solid white stripe of width at least 4 inches and may be dashed up to 200 feet before the approach to an intersection. This design of a dashed bike lane allows for its dual use as a right-turn pocket for motor vehicles.

5. Stencils shall also be used within the lane on the pavement that read “bike lane” and include a stencil of a bicycle with an arrow showing the direction of travel. See the figure below.

Figure 6.7 – Bike Lane Markings

6. Bike lanes with two stripes are more visible than those with one and are preferred. The second stripe would differentiate the bike lane from the parking lane where appropriate.

7. Where space permits, intersection treatments should include bike lane 'pockets' as shown in the figure below.

Figure 6.8 – Bike Lane Pocket

8. Loop detectors that detect bicycles should be installed near the stop bar in the bike lane at all signalized arterial/arterial, arterial/collector, and collector/collector intersections where bicycles are not reasonably accommodated. The location of the detectors should

be identified by a stencil of a bicycle and the words “Bicycle Detector”. Signal timing and phasing should be set to accommodate bicycle acceleration speeds. Please see the figure below.

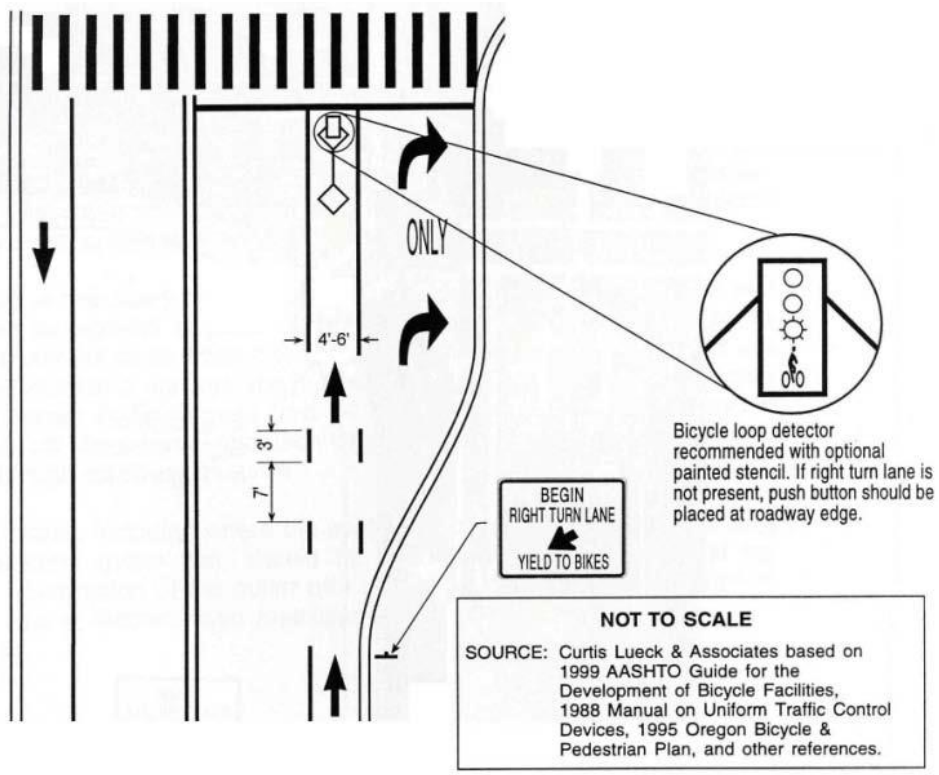


Figure 6.9 – Bike Lane Treatments at Intersection

9. Bicycle-sensitive loop detectors are preferred over a signalized button specifically designed for bicyclists.

10. Bike lane pockets between right turn lanes and through lanes should be provided wherever available width allows and where right turn volumes exceed 150 motor vehicles per hour.

11. Where bottlenecks preclude continuous bike lanes, they should be linked with bikeway route treatments.

6.2.3 Class III Bike Route Facilities

Bike routes have been typically designated as simple signed routes along street corridors, usually local streets and collectors, and sometimes along arterials. With proper route signage, design, and maintenance, bike routes can be effective in guiding bicyclists along a route suited for bicycling without having enough roadway space to provide a dedicated Class II bike lane.

Class III Bike Routes can be designed in a manner that encourages bicycle usage, convenience, and safety. There are a variety of other improvements that can enhance the safety

and attraction of streets for bicyclists. Bike routes can become more useful when coupled with such techniques as the following:

- Route, directional, and distance signage
- Wide curb lanes
- Sharrow stencils painted in the traffic lane along the appropriate path of where a bicyclist would ride in the lane
- Accelerated pavement maintenance schedules
- Traffic signals timed and coordinated for cyclists (where appropriate)
- Traffic calming measures

The following design guidelines should be used with the implementation of new Class III Bike Route facilities in the SANBAG region.

Signage

Proper “Bike Route” signage, as shown in the figure below, should be posted after every intersection along the route of the bikeway. This will inform bicyclists that the bikeway facility continues and will alert motorists to the presence of bicyclists along the route. Directional signage may accompany this sign as well to guide bicyclists along the route.

Figure 6.10 – Bike Route Sign

The sharrow stencil is a way to enhance the visibility and safety of new Class III Bike Route facilities. The stencil should be placed outside of on-street vehicle parking to encourage cyclists to ride away from parked cars’ open doors. They should also be placed at one or two locations on every block. See below.

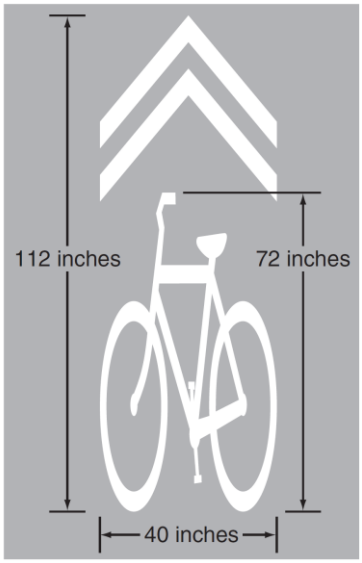


Figure 6.11 – Sharrow Stencil Guidelines

In the case where a lane is too narrow for motorists and cyclists to operate side-by-side, the following sign can be used.

Figure 6.12 – Full Lane Shared Use Sign

Bicycle Boulevards

Bicycle boulevards are Class III bikeways that prioritize bicycles through the use of diverters and other traffic controls. Bicycle boulevards are to be implemented on local streets, generally with fewer than 3,000 vehicles per day, through a combination of traffic calming, intersection treatments, and signing. Bicycle lanes (Class II) are normally not used on a bicycle boulevard, thus little or no parking removal is proposed. The implementation of bicycle boulevards should not result in significant traffic diversion onto other local streets.

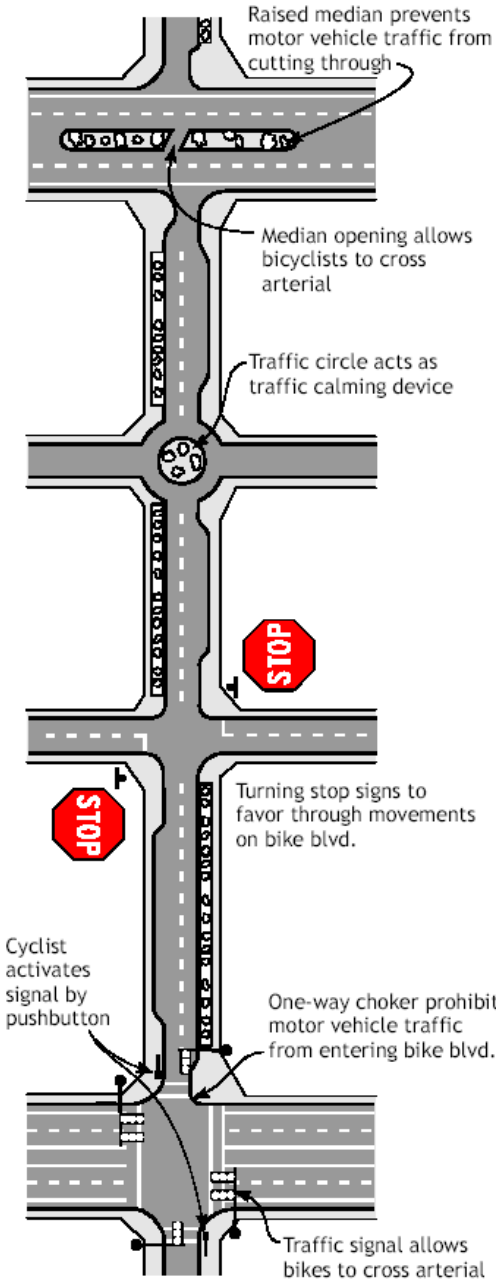


Figure 6.13 – Bike Boulevard Specifications

Bicycle boulevards are most effective when a grid system is in place so motor vehicles can use a parallel route and cyclists can follow a bike boulevard to within a block or two of their destination. Special bicycle stencils, signs, and road treatments are used on bicycle boulevards, as seen in the figure above. Stop signs are often turned on these roadways to prevent cyclists from having to stop at each intersection, and signals are installed at busy intersections to allow safe cyclist crossings.

6.2.4 Numbering Bikeways

A numbered bike route network may be devised as a convenient way for bicyclists to navigate through the valley much the way the numbered highway system guides motorists efficiently through the roadway network. This could be used on all classes of bikeways. An example of a numbered bikeway sign is shown in figure below.

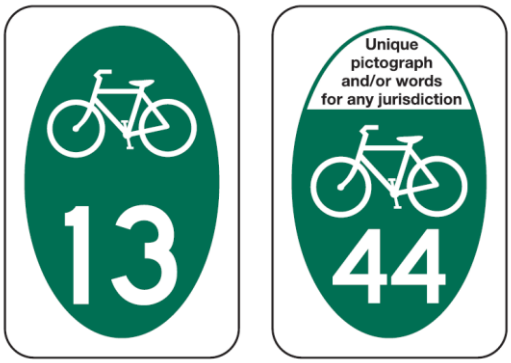


Figure 6.14 – Numbered Bikeway Signs

Destination signs add value to bike routes and assist cyclists to develop a mental map of the route system. Arrows pointing to “Downtown,” “Mojave Narrows Regional Park - 2.5 miles” or “CSU – San Bernardino” should be a standard part of the bikeway network. Destination signs should be placed at the intersection of bikeways to notify cyclists where each bike route goes.

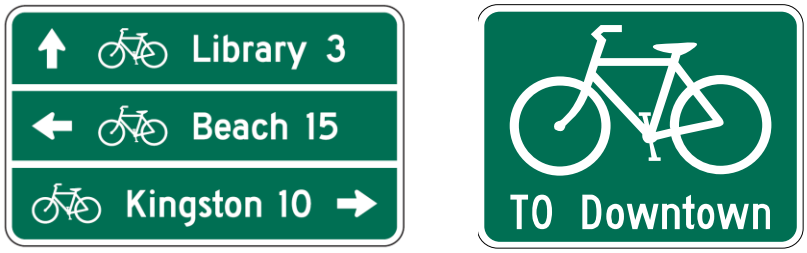


Figure 6.15 – Bicycle Destination Signs

6.2.5 Rumble Strips

Rumble strips are provided to alert motorists that they are wandering off the travel lanes onto the shoulder. They are most common on long sections of straight freeways in rural settings, but are also used on sections of two- lane undivided highways. Early designs placed bumps across the entire width of the shoulder, which is very uncomfortable for cyclists.

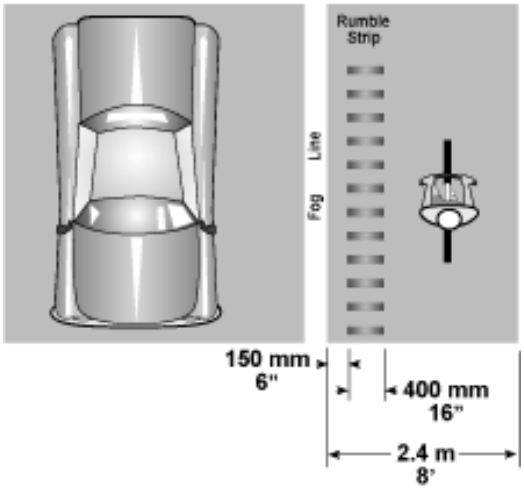


Figure 6.16 – Rumble Strip

A newer rumble strip design is more bicycle-friendly: 400 mm (16") grooves are cut into the shoulder, 150 mm (6") from the fog line. On a 2.4 m (8 ft) shoulder, this leaves 1.8 m (6 ft) of usable shoulder for bicyclists.

6.2.6 Drainage Gates

Care must be taken to ensure that drainage grates are bicycle-safe. If not, a bicycle wheel may fall into the slots of the grate causing the cyclist to fall. Replacing existing grates or welding thin metal straps across the grate perpendicular to the direction of is required. These should be checked periodically to ensure that the straps remain in place.

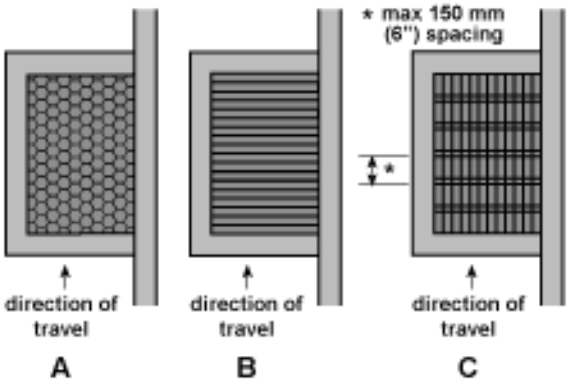


Figure 6.17 – Bike Safe Grates

The most effective way to avoid drainage-grate problems is to eliminate them entirely with the use of inlets in the curb face (type CG-3).

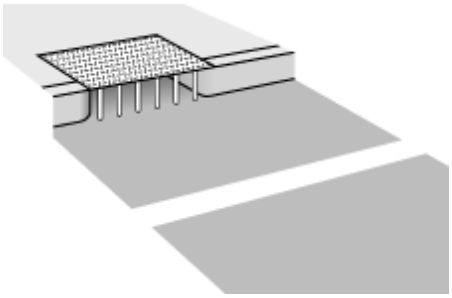


Figure 6.18 – Inlet Flush in the Curb Face

If a street-surface grate is required for drainage (types G-1, G-2, CG-1 and CG-2), care must be taken to ensure that the grate is flush with the road surface.

Inlets should be raised after a pavement overlay to within 6 mm (1/4") of the new surface. If this is not possible or practical, the pavement must taper into drainage inlets so they do not cause an abrupt edge at the inlet.

6.2.7 Extruded Curbs

These create an undesirable condition when used to separate motor vehicles from cyclists: either one may hit the curb and lose control, with the motor vehicle crossing onto the bikeway or the cyclist falling onto the roadway. At night, the curbs cast shadows on the lane, reducing the bicyclist's visibility of the surface. Extruded curbs make bikeways difficult to maintain and tend to collect debris. They are often hit by motor vehicles, causing them to break up and scatter loose pieces onto the surface.

6.2.8 Reflectors & Raised Pavement Markers

These can deflect a bicycle wheel, causing the cyclist to lose control. If pavement markers are needed for motorists, they should be installed on the motorist's side of the stripe, and have a beveled front edge. The use of raised pavement markers has been restricted or prohibited by several jurisdictions in recent years, including Washington State. Provisions can be made for their use in certain circumstances, including lane tapers, on uphill edgelines with 50’ separation between installations, and where a specific engineering study concludes that the benefit of the installation to correct a demonstrable problem at a given site.

6.2.9 Sidewalks as Bicycle Facilities

The use of sidewalks as bicycle facilities is not encouraged by AASHTO, even as a Class III bike route, and may be completely illegal in some jurisdictions across the country. There are exceptions to this rule: while in residential areas, it is true that sidewalk riding by young children too inexperienced to ride in the street is common. With lower bicycle speeds and lower auto speeds, potential conflicts are somewhat lessened, but still exist. But it is inappropriate to sign these facilities as bikeways. Bicyclists should not be encouraged (through signing) to ride facilities that are not designed to accommodate bicycle travel.

Sidewalks can be used for short distances to make connections between off-street shared use paths and other facilities when such routing provides safer and more direct access than other available options.

6.2.10 Roadway Shoulder Evaluation

In areas where roadways have or will be developed with full curb and gutter, the provision of bikeways most often takes the form of striped bike lanes or signed bike routes. On roadways without curb and gutter, which is most often either a county or state road or highway in a rural, unincorporated, or developing area, shoulders provide both a place for bicyclists but also often for pedestrians and a breakdown lane for motor vehicles.

Many roads in the County, especially older roads and those carrying moderate to low traffic volumes, have little or no shoulders. Modern highways and newer roads are typically constructed with shoulders meeting current standards. It is the roadways with no or limited shoulders that present a challenge to local jurisdictions. The major obstacle to retrofitting these roads with adequate shoulders is cost, which in turn is related to:

1. the high number of road miles in the County,
2. the presence of adjacent drainage ditches, utility poles, and other obstacles making construction expensive,
3. lack of right of way, in some cases, and
4. the need to reconstruct roadways to give the shoulder structural integrity.

6.2.11 Shoulder Width

The width of a new or retrofitted shoulder is, in some cases, different for motor vehicle safety than for bicycle safety. For example, while a 3 meter wide (9.8 feet) shoulder is often preferable for vehicle safety, 1.2 meter (4 feet) wide shoulders are often sufficient for bicycle use. According to AASHTO, the most important features to provide for bicyclists on roadways are:

- Paved shoulders
- Wide outside traffic lane (4.2m minimum) if no shoulder
- Bicycle-safe drainage grates
- Adjusting manhole covers to the grade
- Maintaining a smooth, clean riding surface

The widened shoulder will generally be more accommodating in rural circumstances. Where it is intended that bicyclists ride on shoulders, smooth paved shoulders should be provided and maintained. Shoulder width should be a minimum of four (4) feet wide (1.2 meters) when intended to accommodate bicycle travel. Adding or improving shoulders can often be the best way to accommodate bicyclists in rural areas, and they also benefit motor vehicle traffic.

Shoulders constructed for motor vehicle purposes obviously will also benefit bicyclists. This section addresses the provision of shoulders to benefit bicyclists, which means that they (a) may or may not be constructed as part of a roadway paving or repaving project, (b) should be on those segments of the State Bicycle System offering the greatest benefit to bicyclists, and (c) will also benefit motorists and therefore not necessarily funded strictly with bicycle funds. In other words, shoulders will always benefit bicyclists and motor vehicles, and should be considered joint projects. Bicycle funds should be used on shoulders where they provide the greatest benefits to bicyclists.

Several other issues are important to address in relationship to shoulder improvements. First, while shoulders can frequently be widened, narrow bridges represent a potentially worse hazard because there is no escape zone for bicyclists or vehicles. Second, while shoulders always benefit bicyclists, they are especially critical in areas where there is limited motorist visibility, such as around sharp curves, where a vehicle will be surprised to find a bicycle in the roadway. Third, shoulders are always the repository of gravel and debris swept naturally by vehicle traffic, and need to be maintained on a routine basis to be usable by bicyclists. Fourth, in some cases shoulders can be 'created' simply by re-striping the existing pavement, narrowing travel lanes, or shifting lane striping. Finally, in some special circumstances, parallel pathways may supplement (but not replace) shoulders for bicycle traffic.

Wherever possible, new roadway shoulders should be constructed to AASHTO standards. AASHTO identifies a shoulder width of 3 meters (9.8 feet) for roadways with higher traffic volumes. "In difficult terrain and on low-volume highways, (…) the minimum shoulder width of .6 meters (about 2 feet) should be considered and a 1.8 to 2.4 meter width (5.9 feet to 7.8 feet) would be preferable." (p. 338). However, the cost to retrofit many of the state highways in California (and San Bernardino County), especially given the rugged topography and high number of road miles, means that narrower shoulders are a more practical solution. In areas of rugged topography or other constraints, wide shoulders are simply not practical except where there are appreciable traffic volumes. The final decision on shoulder width rests with the reasonable judgment of a licensed engineer.

Any additional shoulder width, even if it is .6 meter (about 2 feet), will benefit bicyclists. In some very constrained areas, or where motor vehicle and bicycle traffic is expected to be low, minimal shoulders between .6 and 1.2 meters (2 and 4 feet) in width are preferable to no shoulders.

Categories of Improvements

While there are a wide variety of roadway settings that have a major impact on cost and feasibility of shoulders, there are four basic categories that describe the range of shoulder improvements (see Figures 5.1, 5.2, and 5.3). It is assumed that all new roadways or roadways with curb and gutter in developed areas will be developed as bike lanes or signed bike routes.

Type 1: New 1.2 meter (4 feet) wide shoulders
Constructed in relatively level terrain, no right of way needed, minor ditch relocation, and minor utility pole relocation. Includes new sub-base, new striping, pavement, striping, and signing.

Cost: $150,000/mile

Type 2: New 1.2 meter (4 feet) wide shoulders
Constructed in moderate terrain, some moderate cuts and fills, some drainage ditch and utility relocation, new striping, and no right of way required.

Cost: $350,000/mile

Type 3: New 0.6 to 1.2 meter (2 to 4 feet) wide shoulders

Constructed in rugged terrain, extensive grading, some new retaining wall, new striping, guardrails, no right of way required, and moderate utility and drainage ditch relocation or improvements.

Cost: $700,000/mile

Type 4: Road Reconstruction to 9.6 meters (32 feet) with minimum 1.2 meter (4 feet) wide shoulders
Where a roadway warrants improvements based on traffic volumes or is being re-constructed due to structural deficiencies, the entire roadway will be constructed rather than simply adding shoulders of any width. While this is a costly approach and would probably be funded as part of a larger roadway project, it avoids long term problems with settling between the roadway and shoulder that can pose a hazard to bicyclists. Cost estimate assumes level to moderate terrain, with no right of way required but some utility and drainage ditch relocation.

Cost: $500,000/mile

Cost

Cost is the single limiting factor to constructing roadway shoulders. Cost in turn is directly related to the adjacent terrain, utilities, drainage ditches, and other constraints. While it is possible to develop an "average" shoulder cost for the local jurisdictions, the actual cost can be broken down into four basic categories for more accurate cost estimating. The estimated cost by category is listed identified above.

To develop an average cost for shoulder improvements, some assumptions must be made about the breakdown between the categories listed above. For planning purposes, this is assumed to be:

- Type 1: 50%
- Type 2: 20%
- Type 3: 20%
- Type 4: 10%

Given these assumptions, the average shoulder improvement cost per mile is estimated to be $335,000.

Individual cost components are shown in Table 2. As can be seen, cost items such as bridges, earth excavation, and drainage can greatly impact the cost of a specific project.

6.2.12 Traffic Calming Programs

Traffic calming includes any effort to moderate or reduce vehicle speeds and/or traffic volumes on streets where that traffic has a negative impact on bicycle or pedestrian movement. Because these efforts may impact traffic outside the immediate corridor, study of traffic impacts is typically required. For example, the City of Berkeley, CA instituted traffic calming techniques by blocking access into residential streets. The impact was less traffic on local streets, and more traffic on arterials and collectors. Other techniques include installing traffic circles, intersection

islands, partial street closings, 'bulb-out' curbs, pavement treatments, lower speed, signal timing, and narrowing travel lanes.

Many cities in California already have a relatively continuous street grid system with little filtering of through traffic into residential neighborhoods. Traffic circles, roundabouts, and other measures may be considered for residential collector streets where there is a desire to control travel speeds and traffic volumes but not to install numerous stop signs or traffic signals.

Traffic calming alternatives should be considered where traffic speeds are exceedingly high, and when safety is an issue.

6.3 Emerging Innovations

Within the past decade, many jurisdictions across the nation are experimenting with and are considering specially designed roadway treatments and traffic signals, new methods of bicycle parking, and other innovations to encourage bicycling and make it safer. This section describes these innovations, including those in use in California as well as those from other parts of the country and world that could have promising applications in San Bernardino County.

6.3.1 Bicycle Boxes

The bike box is an intersection improvement design to prevent bicycle/car collisions, especially between drivers turning right and bicyclists going straight. It is a striped or colored box on the end of the road with a white bicycle symbol inside and includes bicycle lanes approaching the box. Cyclists stop in the bike box to be more visible while they wait for the signal. This waiting area – in front of motor vehicles, but behind the crosswalk – is typically painted a contrasting color. In order to provide maximum safety to bicycles, cars at these intersections are prohibited from making right-hand turns on red.

Figure 6.19 – Bicycle Box

Bicycle boxes increase safety by preventing a common collision at intersections known as the "right hook" where a vehicle making a right turn hits a cyclist proceeding straight through the intersection. Bike boxes are widely used in Europe and a few American cities have started to install them, including Portland, OR, San Luis Obispo, CA, and Long Beach, CA.

6.3.2 Contra-flow Bicycle Lanes

Contra-flow bicycle lanes allow bicyclists to travel in the opposite direction as motor vehicle traffic on one-way streets, thereby providing cyclists with a direct route and avoiding the need to traverse additional blocks to reach their destination. These lanes are clearly separated from opposing lanes with double yellow lines and, depending on conditions, sometimes have partial separation at intersections or mid-block, or complete separation. Factors to be considered during design include vehicle and bicycle turning movements, vehicle and bicycle ADT, available street width, existence of on-street parking and rate of turnover, and transit routes.

6.3.3 Colored Pavement

Colored pavement is used to increase the visibility of bikeways or, more commonly, zones with a high potential for motor vehicle/bicycle conflicts, by indicating cyclist right-of-way with a distinctive color. This convention is designed to remind motorists that they are crossing or adjacent to an area where they can expect to see cyclists and to take extra caution. Colored pavement can be used for very short sections of pavement (such as where a trail crosses an intersection) or for the full length of a bike lane.

Figure 6.20 – Colored Bike Lane in Sunnyvale, CA

On the down side, colored pavement can create a false sense of security for cyclists; confuse motorists since the technique is new and unfamiliar; and have high initial and maintenance costs. Options for creating colored pavement have varying degrees of permanence. Agencies interested in experimenting with colored pavement on a temporary basis can use regular paint or tennis court paint (for green lanes). These paints fade quickly and must be reapplied to

maintain an impact. A more permanent option is to embed color in the last lift of an asphalt overlay, although reapplication requires a grind-out and re-paving.

Portland, OR is the primary U.S. city using colored bike lanes; however, Sunnyvale, CA is experimenting with blue bike pavement and Petaluma, CA is trying out red bike pavement. The city of San Francisco has requested permission to experiment with colored bicycle lanes from the California Traffic Control Devices Committee, the first step toward establishing guidelines for the use of colored lanes.

6.3.4 Traffic Signal Detection

Bicycle detection at signalized intersections can provide a substantial safety improvement for cyclists and motorists alike. This is particularly true in rural areas where there are few signalized intersections but signals are found at crossings of state highways and other major roads. Loop detectors at signalized intersections are used to allow motorists to trigger a traffic light. The following recommendations are intended to expand typical detection loop efforts to include bicycles along designated routes and at key intersections by providing needed improvements such as calibration of existing detectors, installation of new detectors, and installation of stencils. In addition, these recommendations should be incorporated into new development requirements wherever signalized intersections are proposed.

Figure 6.21 – Pushbutton Sign for Signals

General Recommendations

While detector loops facilitate faster and more convenient motorist trips, if they aren't calibrated properly or stop functioning, they can frustrate cyclists waiting for signals to change, unaware that the loop is not detecting their bicycle. Where appropriate, the County should ensure that all existing loops are tested annually and are calibrated and operable for bicycle users.

The County should develop a policy of installing bicycle-calibrated loop detectors at intersections along designated bike routes as they are repaved. For new installation it is recommended that the County use Type D for lead loops in all regular travel lanes shared with bicycles. Within bike lanes it is recommended that the County install Bicycle Loop Detectors (BLDs) using narrow Type C loops. Types A (6' square) and E (unmodified circle) are not bike-sensitive in their center.

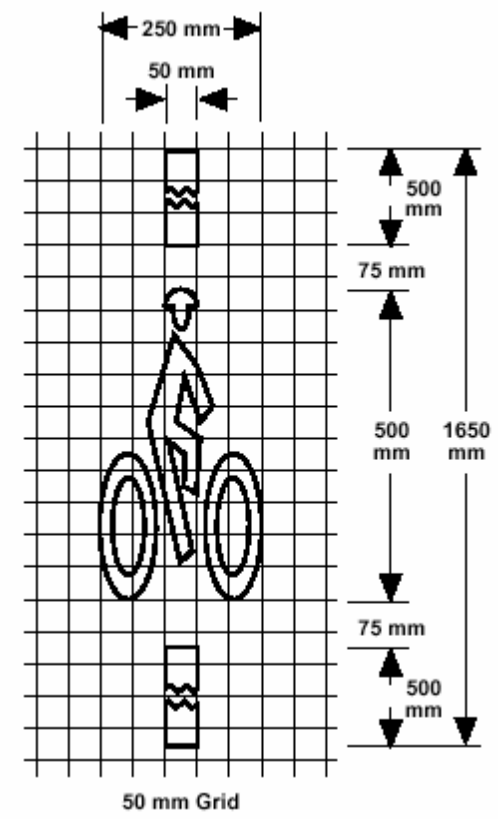


Figure 6.22 – Bicycle Detection Marking

Since most cyclists, as well as motorists, do not know how loop detectors work, all detector loops expected to be used by cyclists should be marked by a pavement stencil that shows cyclists where to stop to activate the loop. Educational materials distributed by the County should describe how to activate bicycle loop detectors. Stencils should be repainted when needed.

Video Detection

Like in-pavement loop detectors, which have been in use throughout many jurisdictions for decades, video detection allows bicyclists to trigger traffic signals at intersections. The technology uses “detection zones” for motorists and cyclists (Figure 6.23) and is most often used at signalized intersections with dedicated bicycle lanes and that are already equipped with motor vehicle video detection.

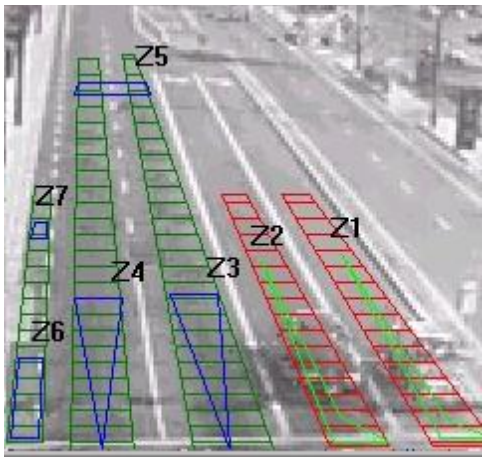


Figure 6.23 – Video Detection System

Video detection is superior to loops because it can detect any bicycle, regardless of frame material, and is not disrupted by asphalt work or other maintenance. However, if a bicyclist does not stop in the detection zone, the camera can miss him or her, thereby leaving the signal phase on red in the cyclist's direction of travel. Furthermore, this technology is compromised by weather conditions, such as heavy fog and bright sunlight. Video detection is currently in use in Santa Rosa, CA.

Senate Bill 1581, signed into law by then Governor Schwarzenegger in January 2008, adds a section to the California Vehicle code requiring new traffic signals to detect bicycles and motorcycles. The bill does not apply to existing signals, however. Caltrans is currently charged with developing new signal detection method guidelines for local jurisdictions.

6.3.5 Bicycle Signals

Bicycle signals are traffic signals equipped with signal heads that apply exclusively to cyclists. Rather than showing simple red, yellow or green lights, these specially designed signals show red, yellow or green bicycle icons, and can be used in conjunction with a pedestrian phase. Since the California Vehicle Code requires bicyclists, like autos, to obey traffic signals, local municipal codes must be changed to allow bicycles to obey bicycle signals instead.

6.4 Bicycle Parking and Facilities

Bicycle parking is not standardized in any state or municipal code. However, there are preferable types of secure bicycle accommodations available. Bicycle parking is a critical component of the network and facilitates bicycle travel, especially for commuting and utilitarian purposes. The provision of bicycle parking at every destination ensures that bicyclists have a place to safely secure their mode of travel. Elements of proper bicycle parking accommodation are outlined below.

6.4.1 Parking Classifications

Bicycle parking facilities in California are classified as follows.

- **Class I**: Class I parking is high security parking, usually with weather protection. This type of parking accommodates employees, residents, and commuters. Class I parking is considered long-term parking and is generally for those who expect to park more than two hours. Examples of Class I parking are storage lockers or restricted access covered areas that provide facilities for individually locked bicycles.

  Bike lockers are covered storage units that typically accommodate one or two bicycles per locker, and provide additional security and protection from the elements. These are typically located at large employment centers, colleges, and transit stations.

  Bike corrals can be found at schools, stadiums, special events, and other locations, and typically involve a movable fencing system that can safely store numerous bicycles. Either locking the enclosure or locating it near other activities so that it can be supervised provides security.

- **Class II**: Class II bicycle parking facilities are best used to accommodate visitors, customers, messengers and others expected to depart within two hours. Class II includes racks that provide two points of contact to allow both wheels and frame to be secured with a user-supplied lock. Bicycle racks provide support for the bicycle but do not have locking mechanisms. They are usually located at schools, commercial locations, and activity centers such as parks, libraries, retail locations, and civic centers.

- **Class III**: Class III bicycle parking is the least secure. It provides only for securing one wheel and frame. This parking class can include street poles or wave bicycle racks.

6.4.2 Effective Guidelines

Bicycle parking facilities should be designed with the following principles in mind to promote a safe, easy, and accessible experience for the commuter or recreational user.

1. Bike racks provide short-term parking. Bicycle racks should offer adequate support for the bicycles and should be easy to lock to. Figures 6.24 and 6.25 display a common inverted-U design that does this. Figure 6.26 depicts a multi-bicycle rack that works well. Figure 6.27 shows an innovative concept in which the bike rack itself looks like a bicycle.

Figures 6.24, 25 – "Inverted U" Bike Racks

Figure 6.26 – Multi-Bicycle Rack

Figure 6.27 – Bike Rack

2. Long-term parking should be provided for those needing all day storage or enhanced safety. Bicycle lockers offer good long-term storage, as shown in Figure 5.28. Attendant and automated parking also serves long-term uses, which are discussed in greater detail in the next section.

Figure 6.28 – Bike Lockers

3. Bicycle parking should be clearly identified by signage, such as in the figure below. Signage should also identify the location of racks and lockers at the entrance to shopping centers, buildings, and other establishments where parking may not be provided in an obvious location, such as near a front door.

Figure 6.29 – Bicycle Parking Sign

4. Bicycle parking should be located close to the front door of buildings and retail establishments in order to provide for the convenience, visibility, and safety of those who park their bicycles.

5. Bicycle lockers should have informational signage, placards, or stickers placed on or immediately adjacent to them identifying the procedure for how to use a locker. This information at a minimum should include the following:

    - Contact information to obtain a locker at City Hall or other administrating establishment
    - Cost (if any) for locker use
    - Terms of use
    - Emergency contact information

6. Bicycle lockers should be labeled explicitly as such and shall not be used for other types of storage.

7. Bicycle racks and storage lockers should be bolted tightly to the ground in a manner that prevents their tampering.

6.4.3 Innovations in Bicycle Parking and Trip Facilities

According to the Association of Pedestrian and Bicycle Professionals, the lack of secure bicycle parking keeps many people from using their bikes for basic transportation. Many people are deterred from riding to work, school, shopping and other destinations, and instead drive, because of an experience with theft or the threat of theft. Providing a secure place to store bikes at cyclists' destinations is a key component of a robust regional bicycling network.

Many employers, jurisdictions and other public agencies have experimented with various bicycle parking designs for decades, including electronic lockers, bicycle stations, and various types of bicycle racks. This section provides an overview of these bicycle parking innovations and a brief discussion of the situations in which each is most appropriate.

Electronic Lockers

For bicyclists who need to leave their bicycles for long periods of time at transit stations or the workplace, security is a key concern. Long-term bicycle parking solutions have historically been limited to lockers, bicycle "lids," and other options that provide sheltered parking controlled with a key or padlock. The primary shortcoming of bicycle lockers is that just one user holds the key to each locker, leaving many lockers frequently empty but unavailable for rental to casual cyclists. Furthermore, while an agency may have the resources to purchase and install bicycle lockers, maintenance and administration are ongoing challenges. Lockers may be abandoned or vandalized, and frequently there are insufficient resources to maintain an accurate list of current users or respond to potential locker-renters in a timely manner.

One solution to the challenges posed by traditional bicycle lockers is the electronic locker, which is rented on an hourly basis on demand, rather than being reserved for months at a time by a single user. This allows each locker to be used by many people over a given period of time, increasing the number of bicycles stored in the lockers. Electronic lockers typically charge a small fee to discourage misuse, which is paid with a specially-designed debit card.

Bicycle Stations

Bicycle stations offer attended or automated long-term bicycle parking. Other services can also be available, such as bicycle repairs, sharing, rentals and retail sales. Bicycle stations can be operated by BikeStation, an organization that serves members and nonmembers by contracting with local partners to manage bicycle parking, service and retail facilities. In addition, there are other, independently operated bicycle stations located at transit stations in various cities like San Francisco and Oakland, CA.

The annual operating cost of a bicycle station range from $25,000 for a small, unstaffed facility to $120,000-$150,000 for a fully staffed, full-service facility. Capital costs range from $25,000 for a secure room or cage to over $3 million for a more extensive facility. Bicycle stations have struggled to identify long-term revenue sources to cover their operating costs and are often subsidized by outside funding, including membership fees, grants and operating funds from transit agencies.

6.5 Pedestrian Design Recommendations

Walkways are the portion of the public right-of-way that provide a separated area for people traveling on foot. Walkways that are safe, accessible, and aesthetically pleasing attract pedestrians. People walk for many reasons: to go to a neighbor's house, to run errands, to school, or to get to work or a business meeting. People also walk for recreation and health benefits or for the enjoyment of being outside. Some pedestrians must walk to transit or other destinations if they wish to travel independently. Outside of private developments, it is a public responsibility to provide a safe and convenient system for those who walk.

The Federal Department of Transportation provides guidelines for the safe design of pedestrian facilities through its work in the PEDSAFE program. The PEDSAFE or Pedestrian Safety Guide and Countermeasure Selection System presents various methods of pedestrian treatments available to jurisdictions. This comprehensive report can be found online at the Pedestrian and Bicycle Information Center website at http://www.walkinginfo.org/pedsafe/index.cfm, and need not be repeated here. Some highlights of other facility recommendations are described below.

6.5.1 Multi-Modal Mindset at the Design Stage

Integration of pedestrian design philosophy requires a comprehensive commitment by numerous agencies, organizations and interests. Such a mindset once established can, over time, create communities in which pedestrian activity is encouraged rather than merely accommodated.

- Designs of new and retrofitted developments should provide accommodation not only for automobiles, but bicycles and pedestrians as well. Subdivision ordinances should specify when sidewalks are appropriate based on traffic volumes and desired character of the community (e.g. rural vs. urban design).

- Mixed-use developments with integrated land uses should be encouraged, since they can foster more pedestrian-friendly environments and generate fewer vehicle trips.

- In areas that have already been urbanized, completion of local sidewalk systems will need to be determined based on local priorities.

- A "park once" policy, in which private or public parking facilities would be built to serve downtowns or activity centers could be instituted so as to reduce trips and the number of parking spaces required.

6.5.2 Traffic Calming

Traffic speeds and volumes through neighborhoods are often expressed as concerns by community members. A wide range of traffic calming treatments could be introduced to address these concerns. These can be used in combination with pedestrian treatments such as crosswalks, signing, lighting to enhance safety.

A number of calming strategies could be considered, including:

- Street trees
- Speed humps and bumps
- Corner and mid-clock curb bulbouts
- Surface treatments
- Narrower streets
- Raised intersections/crosswalks
- Enforcement of existing speed limits

See FHWA's PEDSAFE program for available traffic calming options and application criteria.

6.5.3 Sidewalk Plans

Roadway design criteria, sidewalk planning and prioritization can be used in each jurisdiction to address pedestrian needs on arterial roadways, bridges and school routes. Sidewalk plans should address the following issues:

- Physical Condition: The condition of existing sidewalks may need to be improved. Tripping obstacles range from broken and hazardous sidewalk sections to overgrown shrubs and landscaping that block passage.

- Accessibility: Many intersections lack curb cuts and ramps for wheelchairs. Federal ADA requirements guide the need for improvement of these facilities. Jurisdictions can focus their efforts on access to transit stations, medical facilities, employment centers, and other areas most likely to need such access improvements.

- Connectivity: There are numerous missing sidewalk sections along older arterial roadways, often because the site fronting the roadway has not been developed. Local jurisdictions may be able to provide sidewalks on the frontage to close gaps and recover costs in a subsequent year when the site is developed. Closing sidewalk gaps can be prioritized around transit station locations. An inventory of pedestrian treatments and deficiencies, and plans to improve them, can be conducted through a partnership with local transit agencies.

- Signage that makes existing amenities more visible and accessible to pedestrians.

- Alleviation of congestion and channelization of pedestrian/vehicular flows at school sites.

- Safe routes to school inventories and plans.

- Access to recreational facilities

- Provision of paths on rural streets in accordance with the California Vehicle Code.

6.5.4 Education and Awareness Building

Awareness of the needs of pedestrians should be incorporated into school programs through the use of pedestrian safety courses. Additionally, education and pedestrian awareness issues should be incorporated into Department of Motor Vehicle driver's license tests. Across the country, schools and communities have developed "Walk Your Child to School Day" programs

which incorporate local audits of the walking conditions faced not only by school children each day, but by all members of the community as well. These programs have proven effective in focusing community attention on issues ranging from local traffic enforcement, local street design and the quality of existing pedestrian facilities.

6.6 Bicycle Facility Maintenance

Most of the costs for bikeway maintenance are associated with off-road bike paths, as bike lanes and routes are typically maintained as part of routine roadway maintenance. However, as bicycle lanes require occasional restriping and other maintenance, a cost of $2,000 per mile annually is typical based on experience in other cities. This includes costs such as sweeping, replacing signs and markings, and street repair. Class I bike path maintenance costs are estimated at $8,500 per mile, which covers labor, supplies, and amortized equipment costs for weekly trash removal, monthly sweeping, and bi-annual resurfacing and repair patrols.

Maintenance access on Class I bike paths can be achieved using standard city pick-up trucks on the pathway itself. Sections with narrow widths or other clearance restrictions should be clearly marked. Class I bike path maintenance includes cleaning, resurfacing and restriping the asphalt path, repairs to crossings, cleaning drainage systems, trash removal, and landscaping. Underbrush and weed abatement should be performed once in the late spring and again in mid-summer. In addition, these same maintenance treatments should be performed on Class II and Class III facilities. These facilities should be prioritized to include an accelerated maintenance plan that is already a part of the City's ongoing street maintenance.

It is advisable to identify a reliable source of funding to cover all new Class I, II and III bike facility maintenance. All proposed designs should be closely examined to minimize future maintenance costs. In particular, maintenance on Class II and III facilities should be accelerated.

6.7 Security

Security may be an issue along portions of Class I bike paths. The following actions are recommended to address these concerns. Enforcement of applicable laws on bike paths is performed by local law enforcement agencies, using both bicycles and vehicles. Enforcement of vehicle statutes relating to bicycle operation are enforced on Class II and Class III bikeways as part of the these agencies' normal operations. No additional manpower or equipment is anticipated for Class II or III segments.

6.8 Liability

Liability is a major concern for all local governments. Liability for local agencies implementing and operating new bikeways and pedestrian facilities should be no different than the liability for new roads, parks, or schools. Local agencies should adhere to the following guidelines to minimize their liability.

6.8.1 Use of Design Standards

The designers, builders, and inspectors of a facility should adhere to widely accepted standards governing the design and construction of bicycle and pedestrian facilities. In addition to the Caltrans Design Manual, other applicable or useful reference standards include the Uniform Building Code; the AASHTO Guide for the Development of Bicycle Facilities, for Class I and II Bikeways; Florida Department of Transportation's Trail Intersection Design Guidelines, Island Press's "Greenways: A Guide to Planning, Design, and Development," Americans with Disabilities Act (ADA), and the Rail-to-Trails Conservancy's Trails for the 21st Century: A Planning, Design, and Management Manual for Multi-Use Trails.

Careful compliance with applicable laws, regulations, route selection criteria, and design standards should reduce the risk of injury to bicyclists using the bikeway, and also provide strong evidence that the agency used reasonable care.

6.8.2 Adhere to Maintenance Standards

Maintenance practice should be consistent along the entire facility, and conform to recognized maintenance practices. The responsible maintenance agency(ies) should have a written procedure to follow to maintain all portions of the facility, including the correction of pre-existing conditions such as drain grates.

6.8.3 Monitor Conditions

The responsible agency(ies) should have an internal mechanism to monitor and respond to actual operating conditions on the facility. This is typically done through the maintenance procedures, a record of field observations and public comments, and an annual accident analysis. Accidents should be reviewed to determine if physical conditions on the bikeway were a contributing cause. Agencies are advised against making any verbal or written comments that a facility is safe or safer than a non-designated route.

6.8.4 Keep Written Records and Correct Hazards

Written records of all maintenance activities and procedures, responses to reports of safety hazards, and other regular maintenance requests should be collected and regularly reviewed. While a facility may pass through numerous jurisdictions, it may make sense to have one contact person/department responsible for the entire facility, rather than risk confusion by incidents being reported to the wrong jurisdiction. Mileposts on the route may also help maintenance and enforcement personnel respond to problems. Trail managers should correct all hazards known by public officials in a timely fashion.

7.0 Plan Implementation

Chapter 1 stated that San Bernardino County can and should be one of the centers of cycling and pedestrian activity in Southern California. Subsequent chapters identified the assets and opportunites within San Bernardino County suggesting that this is possible. In addition, a robust non-motorized transportation system can be an implementation element of the overall "vision" for San Bernardino County to be a great place to live, work, and play. However, this cannot occur without a well-focused and aggressive implementation strategy.

This section identifies an implementation strategy for the NMTP and a description of funding opportunities for the proposed bicycle and pedestrian improvements. The implementation strategy consists of the following elements:

- Identification of implementation priorities (both infrastructure and institutional)
- Coordination of responsibilities for project delivery
- Identification and pursuit of funding opportunities

Each of these elements is described below.

7.1 Implementation Priorities

The setting of priorities for the NMTP involves more than just the identification of priority projects, although it does include that. Priorities must also consider institutional initiatives that pave the way for the delivery of priority projects. Thus, the priorities for the NMTP include the recommendations for system improvement identified in Chapter 3, plus several institutional initiatives to foster program and project delivery. The following represent NMTP priorities (not in order of importance):

1. Deliver the Class I backbone bicycle system.
2. Develop better bicycle connectivity between subareas of the County. This must include improved collaboration with Caltrans, given the number of State highways connecting the subareas.
3. Increase connectivity on Class II and Class III bicycle facilities by prioritizing the "low-hanging fruit" – parts of the regional system that are low-cost, close gaps in the system, and provide connections to key destinations.
4. Develop a better "sense of a system" through improved signage, markings, and way-finding for both cyclists and pedestrians
5. Proactively coordinate integration of cycling and walking accommodations with the State's Complete Streets requirements
6. Proactively coordinate integration of cycling and walking access accommodations to and from transit stations
7. Aggressively pursue grant funding and devote additional programmatic funding to non-motorized facilities
8. Identify individuals within SANBAG, local jurisdictions, Caltrans, and transit agencies to be points of contact on non-motorized facility implementation and ensure communication on non-motorized topics among the agencies.

The full identification of Class I bicycle facilities is contained in the subarea maps in Chapter 3 and in the individual jurisdiction plans in Chapter 5. Several key Class I projects listed in the 2001 NMTP and the 2006 update that would be considered as part of the Class I backbone system include:

- Santa Ana River Trail
- Pacific Electric Trail
- San Timoteo Canyon Trail
- Riverwalk Trail
- Cajon Pass Connector – Route 66 Heritage Trail

Descriptions of the Santa Ana River Trail and Pacific Electric Trail may be found in Chapter 3. Information on the other planned facilities may be found in the individual jurisdiction sections.

7.2 Coordination of Responsibilities for Project Delivery

The policies listed in Chapter 2 provide guidance as to how implementation is to occur. Local jurisdictions are responsible for the identification, prioritization, and implementation of non-motorized transportation projects within their jurisdiction, with SANBAG serving in an advisory capacity and coordinating activity where necessary. SANBAG is also to work with local jurisdictions to develop a regional way-finding system.

The policies also identify a role for SANBAG to pursue grant opportunities for State/federal bicycle and pedestrian infrastructure or planning. SANBAG will support local jurisdiction grant applications or collaborate with local jurisdictions to directly submit grant applications for projects in the Plan. The pursuit of grant application opportunities is one of the areas identified in the Plan where substantial improvement is possible, as San Bernardino County has been under-represented in the share of non-motorized grant funds that have been awarded in the past.

This Plan recognizes that regional cooperation among local agencies is critical in the selection and promotion of priority projects and the allocation of local funding to ensure an orderly implementation of an effective bicycle system.
The schedule for implementation on a year-to-year basis can be better coordinated and should be determined by:

- Relationship to the regional system
- Readiness of each project in terms of local support;
- CEQA approvals;
- Right-of-way requirements;
- Timing with other related improvements; and/or
- Success in obtaining competitive funding.

SANBAG staff should monitor the short- and mid-term projects identified in this Plan and subsequent updates, and maintain a comprehensive list of projects and funding allocations. A rolling five-year schedule of short-term projects should be identified so that resources can be focused and coordinated to ensure attention to priority projects over time. This is not to the exclusion of other local projects, but regional connectivity to support commuting and other longer-distance trips is an emphasis of this Plan. Each year the TTAC and SANBAG staff will

review the list of projects slated for priority that year, review the readiness of each project to be proposed for funding, and consider the sequencing of the projects.This process does not preclude cities and local agencies from continuing to submit other local projects for funding consideration.

7.3 Funding Opportunities

There are a variety of potential funding sources - including local, state, regional, and federal programs - that can be used to construct the proposed bicycle and pedestrian improvements. Most of the federal, state, and regional programs are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. In addition, the majority of the programs require a local match, usually 10-15% of the total project cost.

The recipients of grant funds for many of these programs are then required to monitor the projects for compliance with the program guidelines. Although the pursuit and administration of grant moneys can require a significant amount of staff time, grant funding allows for the construction of more miles of facilities.

The key to receiving funds will be to tailor grant requests to meet specific requirements and criteria, leverage grants with matching funds, and demonstrate a commitment by the jurisdiction to implement and maintain the system. Serious intent would include adoption of the NMTP, development of an additional local plan, inclusion of bikeway improvements into the Capital Improvements Plan, adoption of recognized design and operating standards, and public/political support.

A detailed breakdown of available funding programs is provided on the following pages. Tracking program specifics can be difficult as program guidelines are modified regularly. Thus it is important to verify program dates and deadlines with the program administrator since specific amounts and deadlines can change from year to year.

7.3.1 Federal Funding

Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and Subsequent Federal Authorizations

SAFETEA-LU sets the framework for spending federal transportation revenue. SAFETEA-LU expires with the federal fiscal year in 2009, and Congress will adopt successor legislation with new funding programs and guidelines. Many of the programs described in this section may remain.

Federal funding through SAFETEA-LU will likely provide some of outside funding for the NMTP projects. SAFETEA-LU currently contains three major programs that fund bikeway and/or trail projects; Surface Transportation Program (STP), Transportation Enhancement Activities (TEA), and Congestion Mitigation and Air Quality Improvement (CMAQ) along with other programs such as the National Recreational Trails Fund, Section 402 (Safety) funds, Scenic Byways funds, and Federal Lands Highway funds.

SAFETEA-LU funding is administered through the California Department of Transportation (Caltrans) and SANBAG. An annual Call-for-Projects competitive allocation process can be used to determine project funding. A local match is often required for receipt of funds.

Safe Routes to School (SRTS)

As of 2006, a new federal Safe Routes to School program offers grants to local agencies and others for facilities and programs. Bikeways, sidewalks, intersection improvements, traffic calming and other projects that enhance bicycle and pedestrian safety to elementary and middle schools are eligible. Safety education, enforcement and promotional programs are also eligible.

Caltrans administers this grant funding and releases the funds in multi-year cycles. Approximately $46 million was spent statewide in 2008 SRTS-funded projects. The funds are distributed to each Caltrans district according to school enrollment. District 8 (Riverside and San Bernardino Counties) received approximately $6.5 million. Local jurisdictions, school districts and other agencies compete for these funds. This program will have to be reauthorized with the federal transportation bill.

Need to add CMAQ, TE

7.3.2 State Funding

Local Transportation Fund TDA Article III (SB 821)

Transportation Development Act (TDA) Article III funds are state block grants awarded annually to local jurisdictions for bicycle and pedestrian projects in California with about $700,000 awarded for San Bernardino County. These funds originate from the state gasoline tax and are distributed to counties based on population, with a competitive process administered by SANBAG for local jurisdictions.

Clean Air Funds

AB 434 funds are available for clean air transportation projects, including bicycle and pedestrian projects, in California. Please check your local Air Pollution Control District (Southern California Air Quality Management District or the Mojave Desert Air Quality Management District) for attainment and funding status.

State Bicycle Transportation Account

The State Bicycle Transportation Account (BTA) is an annual statewide discretionary program that is available through the Caltrans Bicycle Facilities Unit for funding bicycle projects. Available as grants to local jurisdictions, the emphasis is on projects that benefit bicycling for commuting purposes. The state legislature has historically authorized about $7.2 million per year.

http://www.dot.ca.gov/hq/LocalPrograms/

Safe Routes to School (AB 1475)

The Safe Routes to School (SR2S) program uses allocated funds from the Hazard Elimination Safety (HES) program of SAFETEA-LU. This program, initiated in 2000, is meant to improve school commute routes by improving safety to bicycle and pedestrian travel through bikeways, sidewalks, intersection improvements, traffic calming and ongoing programs. This program funds improvements for elementary, middle and high schools. A local match of 10 percent is required for this competitive program, which allocates over $20-million annually or $40 million to $45 million in two-year cycles. Each year the state legislature decides whether to allocate funds to the program or not.

http://www.dot.ca.gov/hq/LocalPrograms/saferoute.htm

Office of Traffic Safety (OTS)

The Office of Traffic Safety (OTS) seeks to reduce motor vehicle fatalities and injuries through a national highway safety program. Priority areas include police traffic services, alcohol and other drugs, occupant protection, pedestrian and bicycle safety, emergency medical services, traffic records, roadway safety and community-based organizations. The OTS provides grants for one to two years. The California Vehicle Code (Sections 2908 and 2909) authorizes the apportionment of federal highway safety funds to the OTS program. Bicycle safety programs are eligible programs for OTS start-up funds.City agencies are eligible to apply.

Environmental Enhancement and Mitigation Program (EEMP)

EEM Program funds are allocated to projects that offset environmental impacts of modified or new public transportation facilities including streets, mass transit guideways, park-n-ride facilities, transit stations, tree planting to mitigate the effects of vehicular emissions, off-road trails, and the acquisition or development of roadside recreational facilities. The State Resources Agency administers the funds.

AB 2766

AB 2766 Clean Air Funds are generated by a surcharge on automobile registration. The South Coast Air Quality Management District (AQMD) allocates 40 percent of these funds to cities according to their proportion of the South Coast's population for projects that improve air quality. The projects are up to the discretion of the city and may be used for bicycle projects that could encourage people to bicycle in lieu of driving. The other 60 percent is allocated through a competitive grant program that has specific guidelines for projects that improve air quality. The guidelines vary and funds are often eligible for a variety of bicycle projects.

7.3.3 Local Funding

New Construction

Future road widening and construction projects are one means of providing bike lanes and pedestrian infrastructure. To ensure that roadway construction projects provide bike lanes where needed, appropriate and feasible, it is important that an effective review process is in place so that new roads meet the standards and guidelines presented in this master plan. In San Bernardino County, new or widened arterials, and the bicycle facilities that accompany them, may be funded through a combination of Measure I half-cent sales tax funds, development fees, and other local funds.

Environmental Review

Impacts to bicycle and pedestrian circulation and safety should be analyzed in all CEQA documents in the County with appropriate mitigations identified as needed. This mechanism represents a significant opportunity to ensure that non-motorized improvements are included as a component of new transportation projects.

Mello-Roos Community Facilities Act

Bike paths, lanes, and pedestrian facilities can be funded as part of a local assessment or benefit district. Defining the boundaries of the benefit district may be difficult unless the facility is part of a larger parks and recreation or public infrastructure program with broad community benefits and support.

Other Local Revenue Sources

Local sales taxes, fees, and permits may be implemented, subject to local approval. Volunteer programs may substantially reduce the cost of implementing some of the proposed pathways. Use of groups such as the California Conservation Corp (who offers low cost assistance) will be effective at reducing project costs. Local schools or community groups may use the bikeway or pedestrian project as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right of way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations ‘adopt’ a bikeway and help construct and maintain the facility.

Other opportunities for implementation will appear over time that may be used to implement the system.